Dissertation

A Comparative Analysis of Self-Esteem, School Involvement, Family Cohesiveness and Academic Achievement in Seventh and Eighth Graders Dependent upon their Relative Age

by

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Abstract

A COMPARATIVE ANALYSIS OF SELF-ESTEEM, SCHOOL INVOLVEMENT, FAMILY COHESIVENESS AND ACADEMIC ACHIEVEMENT IN SEVENTH AND EIGHTH GRADERS DEPENDENT UPON THEIR RELATIVE AGE

by

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Although the relatively young represent approximately 50% of a given classroom, there is very little research on their mental health, and thus they represent an understudied population. Being relatively young puts children at a higher risk for experiencing short- and long-term negative consequences including lower scores on self-esteem measures throughout their academic career (Thompson et al., 2004) and a higher rate of suicide (Thompson et al., 1999). This study sought to add to this literature by looking at between group differences on measures of cognitive, affective and behavioral outcomes for this understudied and vulnerable group. The research participants were 47 middle school 7th and 8th graders from an affluent Long Island, NY suburban community. Generally, the hypotheses investigated held that the difficulties encountered by the relatively younger child during their academic careers would be evident in lower global self-esteem scores on the Culture Free Self-Esteem Inventory, 3rd Edition (CFSEI-III; Battle, 2002), a higher score on the cohesion subscale of the Family Environment Scale (FES; Moos & Moos, 1986), a lower level of participation in extracurricular activities, and lower scores on measures of English and math achievement. The sample size of 47 was not adequate to

detect a large effect at the .05 level for this type of study (Cohen, 1992); there were no significant differences between the two groups for any comparison. Specifically, younger 7th and 8th graders report the same level of self-esteem, perceptions of family cohesiveness, and level of extracurricular activities as relatively older 7th and 8th graders. Additionally, the academic achievement of the relatively younger groups was not significantly different from the relatively older group on tests of English and math proficiency. Although these findings were not in line with other research it is important to understand that these children should be considered to be an "at risk" group for cognitive, affective and behavioral difficulties.

Prologue

My interest in the relative age effect began when my son, who has a fall birthday, was a toddler. Friends in a similar situation asked if I was going to put him in pre-school the following year or wait an additional year. My initial response was "of course he was going to preschool and what was the big deal about him being the youngest child in the class; I survived with an October birthday why wouldn't he?" Subsequently, I changed my mind and gave my son the gift of time while simultaneously running a longitudinal single-case study. Numerous factors went into the decision including a family history of reading difficulties, the district's expectations regarding pre-reading skills in Kindergarten (since Kindergarten has become the new 1st grade), and the advice of the "all knowing" school secretaries to hold back a fall born boy who was an only child. He is usually, but not always, the oldest in the class by a few weeks and he was nominated for the school's gifted program and is attending a Saturday program for the gifted at a nearby University. Although he's more emotionally mature than many of his peers he faces the same difficulties of growing up such as peer rejection, bullying, and struggling to find a sport at which he can excel.

I won't know for sure if I made the best decision for many years to come, as my single-case study is still in progress; however, interim results indicate that a gift of time has yielded many positive outcomes. The following work is dedicated to gaining a greater understanding of whether this relative age effect is truly a factor in promoting positive personal and social outcomes in this population.

Acknowledgements

I would like to thank the following people for their support during this journey: my husband Matt Bendix for always being their, my sister Michele Bishop, for her editorial acumen, my son Christopher for going along with me on this long strange trip, my mom, for coming to the rescue with many a hot meal, my good friend Marina Hadley who was there when I needed her most and my advisor Georgiana Tryon who was always available with her expert guidance.

This dissertation is dedicated to my dad:

Jerry Ed Bishop
(1931-2007)

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CHAPTER I

Introduction

The relative age phenomenon occurs as a consequence of age grouping children for entry into school or other activities resulting in relatively-older and relatively-younger participants who can differ by up to one-year in age. For example, students entering kindergarten in September may vary in age from 5 years, 8 months (January birthdate) to 4 years, 8 months (December birthdate). Previous research into this "birthdate effect" cited difficulties encountered by summer-born children or the relatively-younger child (Uphoff & Gilmore, 1986) and the advantages experienced by children who were "red-shirted" or held-out for a year, the relatively older child (Frick, 1986); the term "red-shirting" comes from athletics where students sat out for a year of eligibility in order to mature. Furthermore, there is a tendency by parents and educators to "red-shirt" boys more frequently than girls (Bredekamp & Shepard, 1989). As the developmental literature indicates gender differences in maturation suggesting that boys need more time before they are ready for school (Ames, 1967). Regarding the effect of birth date, the phrase "relative age" encompasses both advantages and disadvantages a person may experience as the oldest or youngest in their cohort. The term, "relative age" was used as it refers to children grouped by age, appeared in an article about success in the National Hockey League (NHL) (Barnsley, Thompson & Barnsley, 1985). These authors found that a disproportionate number of NHL players were relatively older as compared to their same-aged peers when they were playing amateur hockey. The purpose of this study was to examine the cognitive, affective, and behavioral manifestations of being relatively younger in 7th and 8th grades. In order to explore these questions I looked at four major

areas of functioning in an adolescent's development: self-esteem, perception of family cohesion, school involvement in extra-curricular activities, and academic achievement.

Under the domain of self-esteem I focused on its development during middle childhood and early adolescence, including the dynamic nature of self-esteem, the research on relative age and self-esteem, and the nature of specific gender features of self-esteem. The section following this discusses the interplay of family cohesion and several variables of significant interest to both educators and parents such as parenting styles, self-esteem, gender, academic success, and mental health. Another important aspect of school behavior was the student's degree of involvement in activities that go beyond those required or expected, such as band, sports, after school clubs, etc. In addition to a review of the relative age literature as it relates to athletics, this section also explores the benefits of participation, gender differences, effects on mental health, and type of activity in relation to extracurricular activities. The next domain discussed, academic achievement, was treated differently; taking an ecological view, the interaction of school features such as the teacher beliefs, classroom environment, and general school climate was examined to better understand the role of schooling in adolescent development.

To begin the discussion that will address these issues, this chapter provides a brief overview of the "relative-age" literature to highlight how being relatively-younger puts children in middle childhood and early adolescence at risk for a variety of negative outcomes, including poor school performance, high drop-out rate from team sports, low self-esteem, and suicide. Psychological development during middle childhood and early adolescence and school readiness will also be discussed.

Due to the paucity of research on the social and personal consequences of the relatively young student in middle childhood and early adolescence, Chapter 2 focuses primarily on the existing literature as it relates to self-esteem, family cohesiveness, school involvement, and academic achievement for all children and adolescents. Where applicable, studies on the relatively young will be discussed. Chapter 3 provides details on the proposed methodology that will be employed in this research of the relatively young student.

Relative Age

Research on the relationship of birth dates to performance has its roots in Ellsworth Huntington's "Season of Birth" (Huntington, 1938). This author analyzed volumes of quantitative archival data and reported that "on average people born in February and March differ decidedly from those born in June and July….they also include a larger proportion not only of distinguished people, but also of unfortunates who become criminals or are afflicted with insanity or tuberculosis" (Huntington, 1938, p 26). More recently, research has demonstrated that summer born children have a greater incidence of receiving a diagnosis of dyslexia (Livingston, Adam, and Bracha, 1993) or behavioral and emotional disorders (Polizzi, Martin and Dombrowski, 2007) and reporting greater incidences of anxiety and other internalizing problems (Greer, 2005).

Research on the phenomena of birth dates in terms of the "relative age effect" has only recently reported such startling differences between groups as Mr. Huntington reported. Thompson, Barnsley, and Dyck (1999) demonstrated that relative age was a factor in youth suicide. They hypothesized that this higher incidence of youth suicide in the group of relatively younger school children may have resulted from early on poorer

school performance that in turn led to lowered confidence and self-esteem. Empirical evidence supported this hypothesis in a cross-sectional study that illustrated how self-esteem ratings of 1st through 9th graders were predictive of age of entrance into formal schooling; in general there was a linear increase in self-esteem as age at entry increased (Thompson, Barnsley, & Battle, 2004).

In the literature, this "relative-age effect" occurs when children are grouped by age for an activity and an age-advantage or disadvantage is created, because some children in this group are more mature or developed than others as they are relatively older (Thompson, Barnsley, & Stebelsky 1991). For example, in Canada's junior hockey program, an extremely strong linear relationship exists between age and the proportion of players on the roster in this highly organized activity where achievement is at a premium and strict age-groupings are applied (Barnsley et al. 1985). One behavioral consequence of the relative-age effect was a high drop-out rate for those youthful hockey players who had been disadvantaged by age (Barnsley & Thompson, 1988). Ultimately, minor league hockey players with a relative age advantage are more likely to play hockey in the National Hockey League (Barnsley et al., 1985).

Upon entering formal schooling, research has shown that relatively young children encounter short- and long-term academic difficulties. The relatively younger student, for example, is more likely to achieve lower math and science test scores throughout their academic careers (Bedard & Dhuey, 2006; Langer, Kalk, & Searls, 1984), receive remedial services (Maddux, 1980; Diamond, 1983), be referred for psychological assessment (DiPasquale, Moule, & Flewelling, 1980) and is less likely to enroll in college preparatory classes (Bedard and Dhuey, 2006). In contrast, children with

a relative age advantage are more likely to have higher achievement (Thompson, 1971; Allen & Barnsley, 1993), be placed in programs for gifted children (Maddux, Stacy, & Scott, 1981), be placed in more challenging education streams or classes (Freyman, 1965; Sutton, 1967) and enter university (Bedard & Dhuey, 2006). Although a majority of relatively younger children appear to be able to catch-up academically (Bickel, Zigmond & Strayhorn, 1991; Crone & Whitehurst, 1999), socially and emotionally they may still be at a disadvantage (Thompson et al., 2004). These disadvantages may stem from the natural consequence of being the youngest and, resultantly, reaching developmental milestones later than their peers.

In a study of educational correlates of early and late sexual maturation in adolescence, for example, researchers found that late maturing boys received significantly lower ratings on eight education-related categories as compared to early and mid maturing same-age males (Duke et al., 1982). Although it was not clear from this study whether the boys' later maturation was a result of the participants' relative age, it is important to note that being relatively younger will increase a youngster's chance of being a "late-bloomer."

Generally, research has indicated that the developmental differences between children grouped by age for school attendance or other activities can confer significant advantages on the older children and present substantial challenges for those who are younger. Thompson and colleagues (2004) posited that children who are younger than the average in their age-grouping are forced to adjust to poorer initial performance due to coaches, peers, teachers, or themselves mistaking maturity for ability. This within-group

"relative age effect" has been shown to result in significant differences in self-esteem, school performance, and in the development of professional athletes.

Development of Children Ages 6 to 14

Children's psychological development during middle childhood (approximately ages 6 to 10) and early adolescence (approximately ages 11 to 14) is driven by basic psychological needs to achieve competence, autonomy, and relatedness (Eccles, 1999). They seek opportunities to master and demonstrate new skills, to make independent decisions and control their own behavior, and to form good social relationships with peers and adults outside the family (Connell & Wellborn, 1991). Additionally, developmental psychologists view the middle-childhood and early-adolescent years as a time of change in the way children view themselves and try to come to a deeper understanding of themselves and others around them (Erikson, 1963; Harter, 1998).

Scholars did not always recognize the importance of middle childhood as a developmental period. Freud and Piaget saw middle childhood as a plateau in development, a time when children consolidated the gains made during the rapid growth of the preschool period and when they prepared for the dramatic changes of adolescence (Piaget & Inhelder, 1973). Erikson (1968), however, proposed the "eight stages of man" that stressed the importance of the successful negotiation of each stage, including middle childhood. For example, the task of middle childhood is to resolve the conflict between industry (the ability to take a task from inception to completion) and inferiority (Erikson, 1968). This conflict becomes especially strong among schoolchildren, who are often in competition with their peers and who exhibit feelings of inferiority when they fail to be industrious (Dworetzky, 1996).

Erikson (1968) also differed from Freud inasmuch as he placed greater emphasis on social and cultural forces and thus placed the child in the broader social world that included not only parents, but friends, family, school, society, and culture, all of whom impact the child's development. The involvement in formal schooling and organized activities that occurs during middle childhood introduces children to new social roles in which they earn social status by their competence and performance (Higgins & Parsons, 1983). A longitudinal study of mental health in children by Roeser, Eccles, and Freedman-Doan (1999) noted that children who had multiple problems later in childhood did not show any cognitive deficits compared to other children during first grade, and thus concluding that it was not simply low intelligence that accounted for such long-term difficulties. More likely, it was inappropriate skills and behavior, rather than general cognitive incompetence that set in motion this maladaptive trajectory of development (Roeser et al., 1999). Poor skills could lead to failure, frustration, poor conduct, teacher disapproval, and so on (Eccles & Roeser, 2003).

Children who do not master the skills required in school and other social settings are likely to develop what Erickson (1968) referred to as "a sense of inferiority" that may lead to long-lasting intellectual, emotional, and interpersonal consequences (Eccles, Wigfield, & Schiefele, 1998; Harter, 1998). Furthermore, researchers have found that children whom peers do not view as competent due to difficulties in academics, social, or other domains (such as athletics, music, drama, or scouting) report higher levels of depression and social isolation than their peers (Cole, 1991; Parkhurst, & Asher, 1992).

While educational psychologists have primarily focused on academic pursuits, out-of-school programs offer alternative environments in which children and adolescents

can learn about themselves and their world and can discover opportunities for carving their own versions of success (Eccles, 1999); however, there may be a limit to the opportunities available to relatively young children as they may not be able to compete effectively in these environments due to their immaturity. As previously mentioned, the literature on relatively-young children in sports describes how maturity has been mistaken for ability by adults resulting in high drop-out rates of relatively-younger children from competitive sports such as hockey (Barnsley & Thompson, 1988), baseball (Thompson et al., 1991), soccer (Barnsley, Thompson, & LeGault, 1992; Dudink, 1994), and football (Glamser & Marciani, 1992), as these children perceive themselves as unable to compete with the age-advantaged youth.

The fifth stage of development, according to Erikson (1968), occurs in adolescence when the task is to develop an acceptable, functional, and stable self-concept and an orientation toward achievement that will play a significant role in shaping success in school, work, and life (Eccles, 1999). According to Erikson, in order for adolescents to be successful in this developmental stage they must maintain a meaningful connection with the past, establish relatively stable goals for the future, and keep up adequate interpersonal relationships to feel that they have an identity. Shaping a positive identity may be more difficult for an adolescent who is relatively younger as he or she may have experienced many adverse personal and social consequences of his or her age position, including academic difficulties, perceived failure in athletics, or being perceived by peers as less competent.

Although Hall (1904) and Erikson (1968) saw adolescence as a period full of many changes and as turbulent, several research findings report that the typical North

American teenager is confident, happy, and self-satisfied (Bachman, O'Malley, & Johnston, 1978; Offer, Ostrov, & Howard, 1984; Savin-Williams & Demo, 1984). In an analysis of depression and other psychopathological states, Strober (1984) suggested that adolescence may be a period of vulnerability for individuals with a propensity toward clinical problems, but that for the majority of adolescents, such problems do not arise. Conversely, early adolescent research provides some support for the turbulence believed to exist in adolescence. For instance, Simmons, Blyth, Van Cleave, and Bush (1979) found indicators that early adolescence (ages 11 to 14) was the time at which children had overall lower self-esteem compared to younger children and older adolescents. Simmons et al. (1979) tied the disturbance in self-esteem to the onset of multiple changes within a short time span, such as changing schools, reaching puberty, and dating. Although this study did not examine relative age, these findings suggest that multiple life changes, in addition to the stress of being relatively younger, may produce the exponential increase in the emotional disturbance discussed by Rutter (1979).

Furthermore, several studies suggest that the timing of puberty is more important than pubertal status per se, and that an interaction of timing and gender may significantly impact levels of self-esteem (Baldwin & Hoffmann, 2002; Nottelman, 1987; Simmons et al., 1979). For example, early maturation can be detrimental for girls, resulting in heightened depressive or sad affect, but beneficial for boys, enhancing their participation in sports and their social standing in school (Petersen, Sarigiani, Kennedy 1991; Simmons et al., 1979). In contrast, late maturation may be beneficial for girls but difficult for boys, resulting in more sadness for "late bloomers" than boys who mature early or within a normal age range (Petersen, 1988). This situation is surely exacerbated for the

relatively young male child, as there may be an age difference of up to 11 months and 29 days between older and younger children of the same age. For the relatively young female, there may be an advantage to maturing later; however, this hypothesis needs to be studied in greater depth and is not the subject of this research.

Although, research concerning the mental health of both children and adolescents has been sparse, relative to similar work with adults (Kazdin, 1993), studies have shown that depression, as a clinical syndrome, is more common, more intense, and of longer duration in adolescence than it is at earlier ages (Hankin et al., 1998; Lewinsohn et al., 1998). In terms of the mental health of adolescents, the incidence of suicide increases slightly in early adolescence and again even more sharply after age 15 (Schaffer & Fisher, 1981). As noted previously, relative age appears to be a contributing factor to the incidence of suicide (Thompson et al., 1999), and thus, Thompson and colleagues (2004) proposed the following causal chain between low self-esteem and suicide for the relatively young adolescent: first, relative-age produces differences in achievement across contexts that are due to maturation, not ability; second, these differences lead to variations in self-esteem and confidence or self-efficacy; third, low self-esteem and lack of self-confidence (self-efficacy) are associated with a child's inability to compete with his or her classmates leading to depression and hopelessness respectively; and finally, depression and hopelessness that have been regarded as essential ingredients of suicide (Beck, Kovacs, & Weissman, 1975; Dyer & Kreitman, 1984) become precursors of self-harming behavior such as suicide.

Finally, early adolescence is a time of increased ability to think abstractly, to look at situations from different points of view, and to be self-reflective (Piaget & Inhelder,

1973). The development of higher-order cognitive abilities helps adolescents accomplish more complicated tasks as they are able to apply their knowledge about themselves as learners to new learning situations (Bjorklund, 1987; Siegler, 1996). The cognitive abilities of relatively young early adolescents may be less well developed than their peers due to their immaturity and may be linked to lower test scores of intellectual ability found in late-maturing adolescents (Duke et al., 1982).

School Readiness

Historically, readiness has been defined as two separate constructs: readiness to learn and readiness for school (Kagan, 1990; Lewitt & Baker, 1995). Readiness to learn is viewed as a level of development at which an individual is able to learn specific material. Readiness for school indicates that the individual also will be able to be successful in a "typical" school context. Today, the concept of school readiness combines both of these constructs and as such school readiness is the degree to which a child is capable of benefiting from the goals, expectations, and activities of a kindergarten program (Graue, 1993; Meisels, 1999).

Carlton and Winsler (1999) argue that the construct of school readiness has suffered from a narrow, maturationist theoretical perspective, which presents the problem as residing solely within the child, with the determination of readiness being the duty of the school systems. In other words, development must precede learning and therefore, we expect children of certain ages to be able to learn certain things.

A newer perspective based upon Vygotskian sociocultural theory and contemporary developmental theory presents readiness as a bidirectional process where learning precedes development. For Vygotskian educators, teachers collaborate with

students to develop programs that are responsive to their current level of functioning and are directed toward the next stage of learning (Berk & Winsler, 1995).

The concept of school readiness is in continuous debate among educators, legislators and administrators due to an escalating curriculum in kindergarten. This escalation is due to a variety of factors including a greater enrollment in preschool, older kindergartners, and accountability testing in higher grades.

Many believe that one way to almost guarantee that a child will be ready for kindergarten is to wait until the child is older to enroll him or her in kindergarten. This maturationalist viewpoint can be accomplished by parents when they "redshirt" their child or by educators when they strongly suggest to parents that their children repeat kindergarten or preschool, or by legislators and administrators who push back a state's cut-off date. Between 1975 and 2000, 22 states moved the birth date required for school entry to an earlier point in the year (Society for Research in Child Development, 2002). There is, however, no evidence suggesting that younger children gained less than older children from early school experience (Society for Research in Child Development, 2002).

Developmental theorists offer support for the "graying of kindergarten" (Graue & Diperna, 2000), especially when it comes to boys. It has been suggested that boys mature later than girls and consequently need more time before they are ready for school (Ames, 1967). Resultantly, more boys that girls, by a rate of 2 to 1, are "redshirted" (Brent, May, & Kundert, 1996).

Summary

In summary, each period in children's development is marked by basic biological and cognitive changes as well as changes in their social environments. Whether learning is the impetus to, or the benefit of, a biological or cognitive developmental stage is under debate by educators, theorists, administrators, and legislators and affects when and how children are educated. Developmental theorists point to the importance of children successfully meeting the challenges faced in middle-childhood and early adolescents inasmuch as perceived failure may contribute to sad or depressed affect (Eccles et al., 1998; Harter, 1998). According to the National Governor's Association (National Governor's Association Task Force on Children, 1989), 6th, 7th 8th grade children are in an important transitional period in their psychosocial and academic growth and thus have unique developmental needs. The Carnegie Council on Adolescent Development (1989) also held that it is important to take an ecological view when examining the developmental needs of adolescents, because early adolescence has consistently been shown to play an important role in a student's educational career through college. Eccles and colleagues (1993), however, have suggested that middle schools do not provide the optimal person-in-environment fit, thus increasing the likelihood of negative outcomes such as low self-esteem.

Despite the limitations of available data in reference to the relatively young, a substantial body of evidence suggests that multiple changes during adolescence, including variation in the age of onset of puberty, may have unique developmental and behavioral consequences that vary by gender. Any difficulties encountered during this important transitional period may be exacerbated for relatively-young students, and as a

result, they may exhibit a variety of negative cognitive, affective, and behavioral consequences such as poor school performance (Duke et al., 1982), low self-esteem (Thompson et al., 2004), and selecting out of team sports (Barnsley & Thompson, 1988).

CHAPTER II

Literature Review

Introduction

Over the last two decades, research in the field of adolescent development has undergone a growth spurt that has resulted in a more realistic view of adolescence. An entire issue of the *American Psychologist* in 1993 addressed the need to further broaden our understanding of this period of life for those populations that are understudied (Jessor, 1993) and called upon researchers to move away from using clinical samples and instead use more representative samples (Zaslow & Takanishi, 1993).

In 1998, a Forum on Adolescence gathered an interdisciplinary group of researchers and practitioners and discussed the need to advance the knowledge base regarding adolescent development, health, behavior, and well-being (Kipke, 1999). Specifically, forum attendees suggested that the focus for subsequent research be on issues of vulnerability and resiliency as well as the effects of stress (Kipke, 1999). This focus would deepen our understanding of adolescent development, particularly among American youth who are underserved, understudied, and in high-risk populations for negative outcomes (Kipke, 1999; Zaslow & Takanishi, 1993).

Of particular concern was the issue of adolescent mental health, an area of research that has been neglected (Kazdin, 1993). According to Professor Kazdin, adolescent mental health has two broad domains: the first encompasses the absence of dysfunction in psychological, emotional, behavioral, and social sphere; the second refers to optimal functioning or well-being in psychological and social domains (Kazdin, 1993).

In the case of adolescents, social competence reflects the ability to negotiate developmentally relevant social tasks and to utilize personal and interpersonal resource to achieve positive outcomes (Kazdin, 1993).

Although the relatively young represent approximately 50% of a given classroom, there is very little research on their mental health, and thus they represent an understudied population whose members may not be able or mature enough to negotiate relevant personal and social tasks. There has been a renewed interest in this population as recent research has indicated a relationship between suicide during the teen years and relative age, i.e., a disproportionate number of adolescents who completed suicide were younger than their classmates when they entered school (Thompson et al., 1999).

Using a person-in-environment fit perspective (Hunt, 1975) within a developmental framework, this dissertation will analyze the affective, cognitive, and behavioral consequences of relatively-younger 7th and 8th grade middle-school students in a suburban community in Long Island, NY. The person-in-environment fit perspective lends itself to an analysis of negative outcomes in children as a mismatch may exist between their developmental needs and the systems of which they are a part, including school, home, and social. According to person-in-environment theory, the fit between the characteristics individuals bring to their social environments and the characteristics of these social environments influences behavior, motivation, and mental health (Hunt, 1975). For instance, a poor fit between relatively young children's or adolescents' developmental needs, as evidenced by their lack of school involvement or low GPA, and their school environment may help explain their feelings of low self-esteem.

Developmentally, school-aged children will continuously learn about the outside world, self-evaluate using social comparison, and develop responses to challenges and learning opportunities (Eccles, 1999). Consequently, their performance in academics, extracurricular activities such as sports, or their social behavior will affect everyone's expectations, including their own, with a resulting positive or negative impact on self-esteem.

Self-Esteem

While the existence, causes, and consequences of low self-esteem of early- and mid-adolescence have been widely researched over the last several decades (Buchanan, Eccles, & Becker, 1992; Erikson, 1968; Gordon, 1977; Rosenberg, 1979; Simmons et al., 1973), only one study explored the consequences of low self-esteem in relatively-younger school-aged children (Thompson et al., 1999), and only one study has empirically validated the existence of low self-esteem in this same population (Thompson et al., 2004). These studies found that children who are relatively young compared to their classmates demonstrated a variety of poor outcomes in school and in extracurricular activities that in turn may be a primary contributor to the low self-esteem reported by this vulnerable, understudied population (Thompson et al., 2004).

Definition. In the literature, the term self-esteem has multiple definitions due to the many disciplinary perspectives (i.e., psychodynamic, cognitive-behavioral, social psychology, and humanistic psychology, to name a few) of those studying it. William James (1890/1984) viewed self-esteem as the ratio of one's successes to one's pretension; therefore, to increase one's self-esteem, a person must either increase one's successes or lower one's expectations. Coopersmith (1967) affirmed that self-esteem is the outcome of

a series of self-evaluations that individuals form in different areas of experience. Similarly, Rosenberg (1979) referred to self-esteem as a positive or negative evaluation of the self. These definitions suggest that self-esteem is not a stable trait, but is instead a dynamic one and changes depending on one's successes and expectations.

Adding to the diversity of definitions in the literature, some authors have equated self-esteem with self-concept. Wells and Marwell (1976), for example, in a review of literature, found that most research on self-concept focused on the evaluative and affective dimensions, so that sometimes self-concept was equated with self-esteem. However, this dissertation defines self-esteem as distinct from, although a component of, self-concept. Thus, self-esteem refers to one's general feelings of self-worth developed over time and based upon a sense of competence derived primarily from past performance, social and self-comparisons, and closely tied to self-efficacy (Bandura, 1978; D'Amico & Cardaci, 2003; Franks & Marolla, 1976; Gecas, 1982; Harter, 1998; Mortimer & Lorence, 1981).

Frequently, studies of student self-esteem have used data collected from teachers, parents, or guardians. Sagatun (1991) stressed a need for studies on the perceptions of different groups, including minors, to systematically examine their subjective experiences. Also, research on students has often used clinical samples and, as noted previously, Zalsow and Takanishi (1993) encouraged the use of more representative samples of understudied populations, i.e., the relatively young student. This dissertation will provide data from these students to obtain their perspective on their self-esteem.

Consistently, researchers have found that high self-esteem is associated with psychological well-being and health, whereas low self-esteem is associated with a host of

psychological problems including depression and anxiety (Abe, 2004; Mecca, Smelser, & Vasconcellos, 1989; Mruk, 1995). In a cross-cultural study of Japanese and American college students, for example, levels of self-esteem were the strongest predictors of emotional distress in both groups of students (Abe, 2004). Additionally, Bandura (1986) has suggested that self-esteem contributes to health practices in that individuals with higher self-esteem develop personal standards consistent with their feelings of worth.

Development of self-esteem. According to the National Association for Self-Esteem, self-esteem has cognitive, affective, and behavioral elements (Reasoner, 2005). Cognitively, we think about ourselves when there is a discrepancy between our ideal self and the realistic appraisal of ourselves. The feelings or emotions provoked when considering this discrepancy represent the affective element, while the behavioral element is outwardly visible in one's behavior such as assertiveness or withdrawal (Reasoner, 2005).

Affective reactions may also be formed by comparing one's perceived competence and attributes to some known standard (e.g., previous performance or grade expectancy) or norm (e.g., classmate, classroom, or school district, etc.) and are thus tied to self-evaluations (Ruble, Parson, & Ross, 1976). Social comparison is the process by which individuals assess their own abilities and virtues by comparing them to those of others (Gecas, 1982). In middle childhood, children spontaneously and more thoughtfully compare their capabilities and attributes with those of their peers to determine how well they measure up (Frey & Ruble, 1990; Ruble & Frey, 1991).

According to Festinger's (1954) theory of social comparison, the main function of this comparative process is reality testing that is most likely to occur in situations where

knowledge about a self-attribute is ambiguous or uncertain. Bandura (1997) suggested that when one lacks relevant prior experiences with the task at hand, social comparison is critical. For instance, a youngster embarking on his or her academic career has only social comparison on which to base his or her self-evaluation as he or she has no prior experience on which to make attributions about himself or herself regardless of his or her relative age.

Social comparison processes are most likely to operate within local groups under conditions of competition and subgroup differentiation and visibility (Covington & Beery, 1976). Rosenberg (1975) focused on the latter condition in a study of the effects of "contextual dissonance" on students' self-esteem. He used "contextual dissonance" to denote the result of the interaction, in a social context such as a classroom, between the majority and a disvalued minority. Rosenberg (1975) found that minority status with regard to race, social class, competence, or values had a negative affect on students' self-esteem. Being relatively young in a classroom might place a youngster in the minority in terms of physical, emotional, or academic development and consequently be detrimental to his or her self-esteem.

Additionally, in the North American culture, children often conclude that failure is an indication of their incompetence, not a condition that can be modified by learning or practicing (Dweck & Leggett, 2000). Cole (1991) found preliminary support for a competency-based model of depression, as peer nominations of competency in various domains were negatively related to depression and being nominated as competent in one or more domains corresponded with lower levels of self-reported depression in childhood.

Social comparison processes, together with expanding cognitive capabilities, have several consequences for children's developing self-understanding in middle childhood. First, their self-evaluations become more realistic and they become increasingly aware that differences in ability are not easily changed (Nicholls, 1986). Second, during school years, children can distinguish among various domains of competency that contribute to a more complex self-concept (Harter, 1998). Third, general self-esteem declines as the students' perception of their intellectual competence becomes more realistic throughout the school years (Freedman-Doan, et al, 2000; Phillips & Zimmerman, 1990).

Thompson and colleagues (2004) investigated the development of self-esteem and the possibility that students' current levels of self-esteem could be determined by age of school entry. They created a database of almost 1200 students in grades 1 through 9 that included general demographics such as age at entry into first grade, self-esteem scores, and family structure (intact or broken). Six, three-month age brackets were created to include students who were the correct age of 5 years 6 months to 6 years 5 months when they entered 1st grade plus those students who were up to three months younger and those students who were up to three months older than the cut-off. Thompson et al., (2004) gave all students The Culture Free Self-Esteem Inventory (CFSEI; Battle, 2002) to assess their current level of self-esteem.

The CFSEI is a paper-and-pencil test that was standardized on boys and girls in the 2nd to 9th grades in Canada and the USA. Mean total self-esteem scores showed a linear increase in self-esteem as age at entry into 1st grade increased (Thompson et al., 2004). This was true regardless of family structure, but the self-esteem of those from broken homes was considerably lower at all ages of entry to 1st grade; however, students

who were over-age for 1st grade entry displayed the highest self-esteem. Thompson and colleagues hypothesized that age-disadvantaged youth suffer from the development of lower self-esteem not only because of their inability to master the skills required to participate in organized sports but also because they are facing similar obstacles in school, inasmuch as children are generally grouped by age and not ability in educational settings.

In summary, consistently, researchers have found a positive association between high self-esteem and psychological well-being and health, and a relationship of low self-esteem with a host of psychological problems including depression and anxiety. Research on the development of self-esteem has demonstrated that relative age affects the development of self-esteem, resulting in lower self-esteem for relatively younger students.

Developmentally, self-esteem appears to be a dynamic trait with ebbs and flows. The transition from elementary to middle school with its larger structure, for example, lends itself to a more realistic appraisal of intellect, social, and athletic ability that will impact self-esteem. Damon and Hart (1982) contended that any evaluation of self-esteem has as its premise the conceptual understandings of the self that may be interpreted and weighed differently at different periods in one's course of development.

The dynamics of self-esteem. Developmental psychologists have been interested in self-esteem changes over time and have suggested that early adolescence may be a good time to look at these changes (Eccles, Midgely, & Adler, 1984; Erikson, 1968; Rosenberg, 1979). For most children, the transition into early adolescence coincides with entry into middle school with a larger sized student body and greater anonymity and

expectations that can have traumatic short-term effects before individuals find their way and use the skills they have developed earlier in life (Eccles, 2004; Simmons & Blyth, 1987; Simmons et al., 1979; Wigfield et al., 1991).

Despite the fact that most studies look at mean level changes in self-esteem instead of intra-individual changes over time (Baldwin & Hoffman, 2002; Block & Robbins, 1993), some authors have reported significant changes after major negative life events, such as changing schools. In looking at mean level changes in a typical cohort, researchers have reported a drop in general self-esteem occurring right after the transition into 6th grade that then rebounded to pre-6th grade levels in 7th grade; however, the rebound was not to the pre-transition level (Eccles et al., 1989; Wigfield et al., 1991). Baldwin and Hoffman (2002) reported intra-individual changes in self-esteem, with results indicating that age has a curvilinear relationship with self-esteem. This suggests that during adolescence self-esteem is a dynamic rather than a static construct

Given that a number of problems emerge in addition to low self-esteem, such as problem behavior and poorer school performance, following the transition to middle school (Simmons & Blyth, 1987), researchers have suggested that negative psychosocial changes are the result of incongruence in the person-in-environment fit that leads to problems in psychosocial functioning (Baer, 1999; Eccles et al., 1993). Evidence of a poor match between the developmental needs of adolescents and the structure of junior high school was apparent in two studies that compared students who transitioned to junior high school after elementary school and those who attended a kindergarten through 8th grade in the same school and only transitioned once into high school. Findings showed that adolescent students who made only one transition after 8th grade had higher ratings

of self-esteem than students in middle childhood who first moved to junior high school and then transitioned into high school after 8th grade (Eccles et al., 1993; Simmons et al., 1979).

In general, self-esteem tends to be a dynamic trait during middle childhood and early adolescence that is affected by perceptions of competence, social comparisons, age, onset of puberty, dating, changing school, and gender.

Specific gender features of self-esteem. The relationship between gender and the developmental patterns and processes of self-esteem has been well researched. Studies have typically found that males have higher self-esteem than females, particularly during adolescence (Baldwin & Hoffman, 2002; Block & Robins, 1993; Bolognini, Plancherel, Bettschart, & Halfon, 1996; Chubb, Fertman, & Ross, 1997; Harper & Marshall, 1991; Simmons & Rosenberg, 1975). One potential reason for this gender gap may be that females' ratings of their attractiveness declines during adolescence as puberty takes hold, whereas boys' perceptions of their attractiveness remain positive and fixed (Harter, 1993).

In a landmark study designed to identify groups and subgroups at greater risk of lower self-esteem, Simmons and colleagues (1979) examined the impact of the entry into early adolescence among 6th and 7th grade boys and girls. Among girls, the ones with the lowest self-esteem were those who had recently experienced multiple changes such as changing schools, reaching puberty, and dating. Boys, in contrast, reported little change in their self-esteem and appeared to benefit from the early onset of puberty.

Baldwin and Hoffman (2002) also described significant gender differences with more dramatic fluctuations among females than among males in the effects of age on

self-esteem. Specifically, female self-esteem decreased substantially from age 12 (approximately the onset of puberty and entrance to middle school) to about age 17. In contrast, males' self-esteem increased until age 14 (when they generally enter high school), decreased until about age 16, but then increased in early adulthood. One potential explanation for the variation in the age effect may be the experience of a high number of difficult life events within a short period of time (Baldwin & Hoffman, 2002).

Researchers have also suggested that the timing of puberty (Blyth, Simmons, & Carlton-Ford, 1983) and gender (Zimmerman, Copeland, Shope, & Dielman, 1997) play an important role in the developmental course of self-esteem. For instance, early maturation tends to be advantageous for boys, resulting in better body image and higher self esteem (Blyth et al., 1981), whereas for girls later development is associated with these positive psychological outcomes (Simmons et al., 1979). Among girls, early maturation resulted in being socialized out of sports (Stager, Wigglesworth, & Hatler, 1990)and increased the likelihood of dating older males, dropping out of school, and marrying at an early age (Stattin & Magnusson, 1990).

In general, identification of understudied groups that may be vulnerable to negative personal and social consequences, such as low self-esteem, continues to be an important area of research (Zaslow & Takanishi, 1993). The relatively young are an understudied population considered by some to be an at risk group due to their mistaken perception of incompetence (Thompson et al., 2004). Furthermore, Thompson et al.(2004) proposed that experiences of low self-esteem early in life may act as a moderator in the relationship between relative age at school entry and the disproportionately high incidence of suicidal behavior in teens (Thompson, 1999).

In an attempt to understand the mechanisms at work in the statistically higher rate of suicide among the relatively-young, Thompson et al. (2004) proposed the following causal chain: first, relative-age produces differences in achievement across contexts that are due to maturation, not ability; second, these differences lead to variations in self-esteem and confidence or self-efficacy; third, low self-esteem and lack of self-confidence (self-efficacy) are associated with a child's inability to compete with his or her classmates leading to depression and hopelessness respectively. Finally, depression and hopelessness, which have been regarded as essential ingredients of suicide (Beck et al., 1975; Dyer & Kreitman, 1984), become precursors of self-harming behavior such as suicide.

In summary, researchers have found that self-esteem is a dynamic construct with short- and long-term negative consequences that differ by gender, biological development, and environmental context; however, only one study (i.e., Thompson et al., 2004) has examined the consequences of low self-esteem in the relatively young. As children enter early adolescence, developing cognitive abilities affect and change their self-esteem inasmuch as realistic social comparisons are made and competencies are established in one's peer group. These fluctuations in self-esteem may result in negative personal and social consequences such as low self-esteem. One of the most comprehensive examinations of the dynamic nature of self-esteem was conducted by Baldwin and Hoffman (2002) and those findings indicate that self-esteem during adolescence is a dynamic trait that is influenced by gender, shifts in life events, and family cohesion.

Family Cohesion

Definition. Family cohesion is defined as the emotional bonding and warm affective ties that family members have with one another (Olson, Portner, & Lavee, 1985; Olson, 1993) as evidenced by the degree of commitment, help, and support that family members provide for one another (Moos & Moos, 2002). As adolescents age, their perception of family cohesion changes (Feldman & Gehring, 1988) and diverges from parents' perceptions (Bagley, Bertrand, Bolitho & Mallick, 2001). Inasmuch as research has demonstrated that perceptions of relationships correlate with psychological functioning (Greenberger et al., 2000; Rhodes & Lakey, 1999) and can be predictive of emotional problems including low self-esteem (Bagley et al., 2001), it is very important to look at the adolescent's perception of family cohesion.

Several authors have hypothesized that cohesive families provide adolescents with emotional support and security as they develop autonomy and establish age-appropriate close relationships with peers (Feldman & Gehring, 1988; Greenberg, Siegel, & Leitch, 1983). A family high in cohesion may provide the emotional support that acts as a protective factor against an adolescent's depressive mood (Aydin & Oztutuncu, 2001), affective disorders (Cuffe, Mckeown, Addy, & Garrison, 2005; Garrison et al., 1997), psychophysiological symptoms (Walker & Greene, 1987), lower sexual activity rates (Sabo et al., 1999), and suicidal threats (Madu & Matla, 2004).

The affects of family cohesion can be documented as early as pre-school and continue well into the young adulthood. Studies of preschool children linked high levels of family cohesion and expressiveness to more cognitive competence and peer acceptance (Bullock & Pennington, 1988) and linked low cohesion to developmental

delays, speech and language deficits, and aggressive and hostile behavior (Fowler, 1980). Families higher in cohesion also tend to have children who have high academic achievement (Georgiou, 1995), high self esteem (Cashwell, 1995), and a strong feeling of control over their own health (Zdanowicz, Janne, & Reynaert, 2003; Zdanowicz, Janne, & Reynaert, 2004).

Authors often times conceptualize family cohesion and family enmeshment on the same continuum by placing enmeshment at the extreme end of cohesion (Barber & Buehler, 1996). Although family cohesion and enmeshment are two important aspects of family life, cohesion is defined as shared affection, support, helpfulness, and caring among family members (Barbarin, 1984; Moos, 1974). Enmeshment, on the other hand, is defined as family patterns that facilitate or inhibit psychological and emotional fusion among family members, potentially inhibiting the individuation process (Barbarin, 1984; Barber, Olsen, & Shagle, 1994; Greenberger & Sorensen, 1974). Although enmeshment is an important facet of family functioning, this study will focus on the adolescent's perception of family cohesion that can be predictive of emotional problems including low self-esteem (Bagley et al., 2001).

Although one study of the relatively young looked at family structure in relation to self-esteem (Thompson, 2004), no study has looked at relatively young adolescents and their perception of family cohesion. An additional reason for studying the perceived level of family cohesion of relatively young students includes the premise that, since they are chronologically less mature than their peers, they are more likely to report a higher level of family cohesion than their relatively older peers. Conversely, if they report an

exceptionally low level of perceived family cohesion, then their subjective reports of self-esteem may also be low.

Family cohesiveness and self-esteem. Coopersmith's (1967) classic monograph indicated that a significant predictor of a child's level of self-esteem was parental warmth which is a key component of optimal cohesion (Olson, Russell, & Sprenkle, 1979). Many researchers since have lent support to this conclusion. Cooper, Homan, and Braithwaite (1983) reported that those children reporting little family support tended to report low levels of self-esteem. Kawash and Kozeluk (1990) studied the responses of 327 8th grade students who completed the Self-Esteem Inventory (SEI; Coopersmith, 1984) and the Family Adaptability and Cohesion Evaluations Scale (Olson, Portner, & Lavee, 1985; FACES III). The students' scores on the FACES III scale were cast into the 16 cells of the Circumplex Model of Family Cohesion (Olson, Russell, & Sprenkle 1979, 1983) to examine variations in SEI scores in this framework (Kawash & Kozeluk, 1990). The mean SEI scores increased monotonically with increases in cohesion, and Kawash and Kozeluk reported a parallel increase between parental warmth and family cohesion.

Garrison et al. (1997) found that an adolescent's perception of family cohesion was more important to his or her mental health than family structure. Thus, it was not surprising that Thompson et al. (2004) found no effect for family structure on the self-esteem of children across different age groupings; however, the self-esteem of those children from broken homes, defined as living with one or neither of their parents, regardless of their relative age, was considerably lower than that of their peers in intact families (Baer, 1999; Thompson et al., 2004). This is an important finding given the rise in nontraditional family structures including single, blended, foster, adoptive, and

homosexual households (Fish, 2000). This dissertation will examine demographic information regarding family structure that will be acquired from a review of student records inasmuch as it may be a confounding variable in the level of reported self-esteem of relatively young adolescents from broken families.

With approximately one-half of all marriages being a remarriage for at least one partner (Bumpass, Sweet, & Martin, 1990), the stepfamily structure may represent a significant portion of the families being studied in this research of relatively young students. A longitudinal examination of stepfamily cohesion found that, although levels of cohesion may be low in well-functioning or happy stepfamilies, the quality of the step relationship was significantly related to overall stepfamily cohesion and happiness (Ludwig, 2001). Although, students who reported coming from broken homes had significantly lower self esteem than those from intact families, the structure of the family did not contribute significantly to the prediction of self-esteem in relatively young students (Thompson et al., 2004). Thus, it is the perception of cohesion, not the structure of the family that this dissertation will study, as structure is not indicative of cohesion.

Although much has been written about cultural influences on important areas of a student's functioning, such as academic success (Dornbusch & Ritter, 1992; McGoldrick, 2002; Okagaki, 2001; Okagaki & French, 1998), family cohesion and its effect on self-esteem also appears to vary significantly across cultures (Abe, 2004; Bagley et al., 2001). Abe (2004) examined the relative importance of self-esteem, family cohesion, and support from friends in predicting depressed mood and anxiety in Japanese and American college students. Consistent with the view that perceptions of relationships may be more strongly associated with emotional distress in interdependent than in independent

cultures, the between-culture analyses revealed that perceptions of family cohesion accounted for a significantly larger percentage of the variance in predicting the measures of emotional distress in Japanese students than in American students (Abe, 2004). Of particular interest also were the other findings of this study related to family functioning and self-esteem; first that family cohesion was more strongly associated in the negative direction with depressed mood than with anxiety in the U.S. sample; and second (as mentioned earlier) that self-esteem was the strongest predictor of emotional distress in both groups (Abe, 2004).

Bagley and colleagues (2001) asked adolescents and their parents from England and Canada to report on family functioning and found that conflict between a parent and an adolescent may be indicative of problems of family cohesion and may predict poorer self-esteem and problems of emotion and behavior (Bagley et al., 2001). These findings lend support to Thompson's (2004) proposed causal chain between low self-esteem and suicide of the relatively young student.

Baldwin and Hoffman (2002) examined how family cohesion influenced intra-individual changes in self-esteem during adolescence over time. Longitudinal data from adolescents and parents, who completed self-administered questionnaires annually, were used to estimate a hierarchical linear model that emphasized the affects of age, life events, gender, and family cohesion on self-esteem. Results suggested that being an adolescent member of a cohesive family, regardless of gender, is associated with increased self-esteem over the course of adolescence.

The dynamic nature of family cohesion. Family cohesion, and the perceptions shared by family members, has also been found to be a dynamic rather than stable trait.

According to theory and research in family functioning (Baer, 2002; Collins & Russell, 1991; Hill, 1993; Olson et al., 1979; Paikoff, & Brooks-Gunn, 1991), families are most cohesive in the early stages of the family life cycle and least cohesive in the adolescent and launching stages. Additionally, children's perceptions of family cohesion change, with young children viewing the family as being more cohesive than early adolescents (Feldman & Gehring, 1988), while their parents' perceptions remain constant (Bagley et al., 2001; Zdanowicz et al., 2003). As adolescents aged, initial reports of large discrepancies between early adolescents' and their parents' perceptions of family cohesion decreased significantly over time (Seiffge-Krenke, 1999). Researchers have noted that the degree of the discrepancy between parent and adolescent views of family functioning can be predictive of emotional and behavioral problems as well as low self-esteem (Bagley et al., 2001).

In a cross cultural study of African-American, Mexican-American, and Euro-American families, members reported three-year increases in family conflict in each group with corresponding decreases in perceived family cohesion (Baer 1999). In this study 6^{th}, 7^{th}, and 8^{th} grade girls and boys from the three different ethnic groups completed questionnaires regarding communications with parents, family cohesion, and family conflict. Results were analyzed using independent samples *t*-tests for significant changes in scores on family conflict and gender differences in ethnic groups (Baer, 1999). A multiple regression procedure was performed for each ethnic group to determine the effects of the SES variable, family structure, communication with parents, and family cohesion on family conflict (Baer, 1999). Consistent with a growing body of cross-cultural research in this area, there were significant increases in scores on family

conflict across all three groups as well as a decrease in scores of family cohesion during the adolescent years (Baer, 1999; Nucci, Camino, & Milnitsky-Sapiro, 1996; Seiffge-Krenke, 1999; Yau & Smetana, 2003).

Generally, the attempt to achieve a new balance between connectedness and separation characterizes the relationship between parents and adolescents (Grotevant & Cooper, 1985, 1986). Smetana, Crean, and Campione-Barr (2005) suggested that conflict occurs when parents try to control areas of adolescents' lives that adolescents consider to be outside the legitimate domain of parental authority. Theorists and empirical researchers of family functioning during adolescence agree that, optimally, families should possess a moderate level of cohesion (or closeness and connectedness) and flexibility of roles and rules. The term "precision parenting" (Mason, Cauce, Gonzales, & Hiraga, 1996) has been coined to describe the delicate balance that parents must strike between providing sufficient behavioral control to keep their adolescents safe, while not being overly intrusive into an adolescent's personal domain.

Family cohesiveness and parenting style. Baumrind (1971) described three parenting styles: authoritarian, permissive, and authoritative. Authoritarian parents put forward a strict set of rules and require unquestioned obedience to them; physical punishment is commonly used by the parent to enforce rules, and reasoned discussion with the child is rare. Children raised in this rejecting and demanding environment tend to be socially withdrawn, sullen, have low self-esteem, and may be unpopular and aggressive (Weiss & Dodge 1992). Permissive parents, on the other end of the parenting spectrum, are tolerant, rarely use punishment or demand age-appropriate behavior, allow children to make many of their own decisions, and rarely have strict rules governing the

children's time (Baumrind, 1967). Children raised in this type of permissive environment are often immature, have poor impulse control, can be aggressive, and are often unpopular (Baumrind, 1967). Authoritative parents set strict standards but are also warm and willing to explain their reasoning (Baumrind, 1967). A key feature of authoritative parenting, especially for teenagers, is joint decision-making and a willingness to negotiate (Baumrind, 1991).

Eccles et al. (1996) showed that a family environment offering opportunities for personal autonomy and decision making is associated with positive outcomes, such as higher self-esteem, self-reliance, satisfaction with school and student-teacher relations, positive school adjustment, and advanced moral reasoning. They assessed family decision making in two ways in this study: Both the adolescents and their parents responded to two items derived from the Epstein and McPartland (1977) scale of family decision making (e.g., "In general, how do you and your children arrive at decisions?" [1 = I tell my child just what to do; 3 = We discuss it and then we decide; 5 = I usually let my child decide]; and "How often does your child take part in family decisions that concern herself or himself?' [1 = never; 4 = always] (Eccles et al., 1996).

What is unclear about the decision-making feature of the authoritative type of parenting, as Nucci and colleagues (2005) pointed out, is whether parents should negotiate with their children around all issues or remain firm on some and be more flexible around others? Social domain theory attempts to answer this question using a more differentiated view of parenting than the authoritative, authoritarian, and permissive styles reported by Baumrind (1971). Social domain theory offers evidence that parental authority is neither perceived by adolescents nor applied by parents in a uniform fashion

across the range of children's behaviors. Additionally, variations in parenting are a function of different social-cognitive domains (moral, conventional, prudential, personal, and overlapping) (Nucci, Hasebe, & Lins-Dyer, 2005). For example, a parent's parenting style for an adolescent may be authoritarian in the domain of driving safety, but permissive in the domain of hair color.

Nucci et al. (2005), in a review of social domain theory research, proposed that developmentally supportive parenting entails the provision of parental guidance and structure around children's moral, conventional, and prudential actions; parental permissiveness with regard to personal matters; and negotiation and flexibility over issues that entail intersections or overlaps between personal issues and matters of prudence, convention, or morality. Using results from several studies examining responses from children and adolescents in the United States, Japan, and Brazil, researchers demonstrated that parental over-control of the personal domain is associated with adolescents' psychological symptoms such as depression (Nucci et al., 2005; Smetana et al., 2005).

The task of precision parenting of a relatively young adolescent may be extremely daunting inasmuch as the younger adolescent may or may not be as mature as his or her classmates, yet he or she may want to engage in the same social activities. Premature or excessive autonomy from parents relates to early initiation of sexual activity (Henggeler, 1989) and running away behaviors (Stierlin, 1974). Family cohesion is especially important for those relatively younger students, as parents who are more emotionally bonded to their child will most likely be able to make decisions that foster independence

without putting their male or female adolescent in a situation that may not be developmentally appropriate.

Family cohesion and gender. Although research shows that gender of the child plays a significant role in the level of family cohesiveness, results are mixed. Researchers have found the self-esteem of boys to be more strongly related to family relationship than is the self-esteem of girls (Demo, Small, & Savin-Williams, 1987; Gecas & Schwalbe, 1986; Hill & Holmbeck, 1986); however, Buri et al. (1988) examined the relationship between self-esteem and parental characteristics and found that more than twice the variance in self-esteem could be predicted for female students (37%) than for male students (16%), suggesting that the self-esteem of female students may be more dependent on family relationships than is the self-esteem of male students.

In a four-year study of 128 two-parent families with a child in early adolescence, Seiffge-Krenke (1999) found that levels of cohesion, support, and expressiveness were consistently higher in families with daughters; families with sons experienced stronger emotional distancing. It appears that daughters individuate while staying connected whereas distancing was more typical for families with sons; however, the emphasis on adolescent independence was highly similar in families with daughters and sons (Seiffge-Krenke, 1999).

Buri and Dickinson (1994) re-examined the relationship between self-esteem and the three parental characteristics (parental permissiveness; authoritarianism, and authoritativeness) by adding three cognitive variables (high standards, self-criticism, and overgeneralization). In this study, researchers found that although the variables of parental authoritativeness and authoritarianism were predictive of self-esteem, accounting

for nearly 17% of the variance when excluding cognitive factors, the effects of these familial variables were overshadowed by the cognitive factors, especially among female respondents (Buri & Dickinson, 1994). The inclusion of the cognitive domain in this study served to temper a potential overemphasis upon the role of parental authority in self-esteem development and to highlight the potential for distorted thought patterns believed to cause and perpetuate low self-esteem.

In summary, family systems theory (Minuchin, 1985) has been influential in the recognition of family cohesion as a fundamental dimension of family relationships. Although not extensive and at best conflicting, literature suggests that family cohesion may influence boys and girls differently. For example, cohesive family relationships have been shown to be especially important for adolescent females who tend to define their self-worth in terms of their relationships with others (Harter, 1990), and low levels of family cohesion for females is related positively to depressive affect (Wentzel & Felman, 1996).

In terms of the child or adolescent's perceptions, those who describe their parents as being democratic and warm perceive their families as cohesive. These children are more likely than other adolescents to develop positive attitudes towards their achievements and therefore do better in school (Steinberg, Elmen, & Mounts, 1989).

Family cohesiveness and academic success. An ecological approach to understanding the relationship between social support and school outcomes considers that students are strongly influenced by the social contexts in which they live (Bronfenbrenner, 1979, 1986). Social support providers include parents, friends, and teachers. Specific family variables that have been studied and are thought to determine

academic success include parental expectation of their children's educational level as well as the length of time they had maintained their expectations (Jacobs & Harvey, 2005); cohesion, parental control, parental relationship (Moos & Moos, 1986), and parenting style (Baumrind, 1971).

Findings from a large body of research indicate a positive relationship between social support and outcomes of particular interest to educators, such as student motivation (Goodenow, 1993), school adjustment (Kurita & Janzen, 1996; Manetti & Schneider, 1996), a sense of school coherence (Bowen, Richman, Brewster, & Bowen, 1998), drop out rate (Gill-Lopez, 1995), ability to handle daily school hassles (Costin, 1995; Rosenfeld, Richman, & Bowen, 1998), time studying (Rosenfeld et al., 1998), academic and behavioral adjustment (Dubow, Tisak, Causey, & Hryshko, 1991; Ford & Sutphen, 1996; Quamma & Greenberg, 1994), attendance (Kojima & Miyakawa, 1993; Rosenfeld et al., 1998), and participation in extracurricular activities (Voelkl, 1995).

Additionally, social support directly or indirectly enhances overall school achievement and academic competency (Crean, 1995; Levitt, Guacci-Franco, & Levitt, 1994; Rosenblum, 1994; Sanders, 1996; Watson, Brown, & Swick, 1983), including performance on examinations (Alva, 1991; Darling, 1987; Goldsmith & Albrecht, 1993; Sarason, 1981; Sarason & Sarason, 1986), achievement tests (Rothman & Cosden, 1995), and grades (Cutrona et al., 1994; Greco, 1993; Kojima & Miyakawa, 1993).

Expressly, family cohesion had the highest correlation with GPA among gifted high school students (Shaw, 2000). Using three scales (cohesion, conflict, and expressiveness) of the Family Environment Scale (FES; Moos & Moos, 1986) and scores from the Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987), Shaw (2000)

examined the relationship of academic performance to depression and perceived family environment among gifted high school students to better understand underachievement in this population. The FES is a 90-item pencil-and-paper self-report instrument normed on over 1,100 families and 500 "distressed" families (Moos & Moos, 1986). Although depression, perceived family cohesion, conflict, and expressiveness were all significantly related to academic performance, family cohesion had the highest correlation with GPA (Shaw, 2000).

Georgiou (1995) reported similar findings in a study of Greek high school students. Socio-economic status (SES) is often cited as the predominant determinant of academic success; however, in this study of 9th graders in Greece, it was found that the degree of family cohesion was as able to discriminate between high and low achieving students as their family's' SES (Georgiou, 1995).

Academic achievement is affected by many factors that are both internal and external to the student. Using an ecological framework, Bronfenbrenner (1979, 1986) asserted that it is the microsystems in which the student operates that appear to have the greatest influence on his or her academic achievement. Specific family variables that have been studied and are thought to determine academic success include parental expectation of their children's educational level as well as the length of time they had maintained their expectations (Jacobs & Harvey, 2005); cohesion, parental control, parental relationship (Moos & Moos, 1986), and parenting style (Baumrind, 1971). However, it was family cohesion that had the highest correlation with GPA among gifted high school students (Shaw, 2000) and was also able to distinguish between high- and low-achieving students as well as their family's SES (Georgiou, 1995).

Negative life events have been linked to physical problems in adolescents such as the diagnosis of illness, conduct disorder, bulimia, and suicide risk (Cohen-Sandler, Berman, & King, 1982; Greene, Walker, Hickson, & Thompson, 1985; Strober, 1984) with adolescents in low-cohesion families reporting more symptoms than those in families with high cohesion (Felner, Aber, Primavera, & Cauce, 1985).

Family cohesiveness and health. Cohesion has been shown to be directly related to an adolescent's health and health-related behaviors and emotional well-being in the family and school environments (Cuffe, Mckeown, Addy, & Garrison, 2005; Garrison et al., 1997; Madu & Malta, 2004; Walker & Greene, 1987). Walker and Green (1987) found that family cohesiveness mediated negative life events in adolescents. Participants in this study were new patients at an adolescent outpatient medical clinic who, while waiting with their mothers, completed five self-report inventories (perceived personal efficacy, family resources, peer support, life events, and psychophysiological symptoms). Results provided evidence that perceived personal efficacy, peer support, and family cohesion have direct affects on the symptom levels of males and females. For males, the interaction between peer support and negative life events indicated that peer support was a buffer against stress, and for females, high peer support did not buffer stress, but low peer support was associated with high symptom levels regardless of frequency of negative life events (Walker & Greene, 1987). Low family cohesion was associated with high symptom levels for both males and females in the absence of negative life events, indicating that lack of family cohesion may itself be a stressor (Walker & Greene, 1987).

Family environmental factors, including cohesion, have been shown to be a contributing factor in an adolescent's suicidal behaviors (Madu & Matla, 2004;

McKeown et al., 1998). The role of familial factors as a catalyst in an adolescent's transition between the stages of suicidal behaviors was examined in a longitudinal sample of young adolescents. McKeown and colleagues (1998) examined one-year transition probabilities and baseline predictors for suicidal behaviors in young adolescents using adolescents from a two-stage, community-based longitudinal study.. In terms of suicidal behaviors, researchers found that increasing family cohesion served as a protective factor for suicide attempts (McKeown et al., 1998).

In a study of family environmental factors as correlates for adolescent suicidal behaviors in the Limpopo province of South Africa, Madu and Matla (2004) found that family cohesion was a significant correlate of suicidal threats. The participants were 435 adolescents aged between 15 and 19. The authors surveyed demographic variables, family environmental factors, and suicidal behaviors. The study examined the relationship between perceptions of the ideal family and adolescents' feelings of responsibility about their health in two groups of adolescents; clinical and non-clinical. The authors concluded that the level of family cohesion was a significant contributor to adolescents' acquisition of feelings of control over their own health as well as the level of power they attributed to other people. Additionally, high levels of family cohesion can serve as a protective factor in deterring violent behaviors that ranged from being in a serious physical fight to shooting or stabbing someone, regardless of racial/ethnic group (Franke, 2000).

In summary, family cohesion can be defined as the emotional bonding between family members as evidenced by the degree of commitment, help, and support family members provide for one another (Moos & Moos, 2002). Overwhelmingly, research

indicates that family relationships are adversely affected as children enter into adolescence and resultantly, parent and adolescent beliefs about family cohesion diverge. The degree of the discrepancy between parent and adolescent views of family functioning can be predictive of emotional and behavioral problems including low self-esteem (Bagley et al., 2001).

Families high in cohesion tend to have children who have high academic achievement, high self esteem, and a strong feeling of control over their own health. Additionally, high family cohesion acts as a buffer against the many difficult life events in middle childhood, early adolescence, and adolescence that tend to result in low self-esteem, increased depressed mood, and self-harming behaviors.

Social domain theory offers a more differentiated view of parenting than the authoritative, authoritarian, and permissive styles reported by Baumrind (1971) and provides evidence that parental authority is neither perceived by adolescents, nor applied by parents, in a uniform fashion across the range of children's behaviors. Thus, the more cohesive or emotionally bonded a family is, the more precise parents can be, balancing the adolescent's need for autonomy with concerns for the child's physical and emotional safety. For example, parents with a relatively young 7th grader may allow their child to experience some of the freedoms allowed other 7th graders such as extracurricular activities but limit their time away from home because they are younger (up to11 months 29 days younger than their classmates), and emotionally and physically less mature. Furthermore, as children enter early adolescence, their perceptions of their family change, and they may perceive them as being less supportive or cohesive. Navigating through middle school for both parents and the adolescent is very challenging without the added

stress of being relatively young. This dissertation will examine the relationship between early adolescents' perceptions of family cohesion and positive and negative outcome for the relatively young student.

School Involvement

Another important aspect of school behavior is the child's degree of involvement in activities that go beyond those required or expected, such as band, sports, after school clubs, etc.

Definition. In an effort to clarify the lexicon of terms, concepts, and measurement tools used to study a student's connection to school, Libbey (2004) summarized the current literature on school involvement. Like other concepts, school involvement had a variety of uses; as part of a larger construct such as school bonding (Jenkins, 1997), as a single variable (Caspi, Moffitt, Wright, & Silva, 1998); and at times as a group of items within a variable, as in school membership (Hagborg, 1998). This dissertation will examine school involvement as a single variable. Students will be asked to report on the number of extra-curricular activities they are involved in by checking off items from an inventory of extra-curricular activites offered by their middle school.

School involvement is an area of concern for parents, educators, and school administrators because participation in any constructive school activity has been found repeatedly to be associated with positive developmental outcomes. For example, Otto's work (Otto, 1975; 1976) indicated a connection between extracurricular activities and educational attainment, occupation, and income. Research by Mahoney and Cairns (1997) found that participation in extracurricular activities was related to a reduced risk of school dropout for high-risk youth. Participation in extracurricular activities has also

been linked to increased indicators of positive development such as self-concept, high school GPA, school engagement, and educational aspirations (Lamborn, Brown, Mounts, & Steinberg, 1992; Newmann, Wehlage, & Lamborn, 1992; Winne & Walsh, 1980).

The type of activity in which adolescents spend their discretionary time has been the subject of many studies (Bartko & Eccles, 2003; Eccles & Barber, 1999; Eccles, Barber, Stone, & Hunt, 2003; Eccles & Templeton, 2002). Empirical research has linked the choice of after-school activity to peer relationships and acceptance (Kinney, 1993; Mahoney, 2000; Jacobs-Sandstrom & Coie, 1999), school achievement (Eccles & Barber, 1999; Marsh, 1992), school dropout (Mahoney & Cairns 1997; McNeal, 1994), antisocial behavior (Jones & Offord, 1989; Mahoney & Stattin, 2000), teenage parenthood (Allen, Philliber, Herrling, & Gabriel, 1997), and criminal offences (Mahoney, 2000; Mahoney, Stattin, & Magnusson, 2001; Osgood, Wilson, O'Malley, Bachman, & Johnston, 1996).

Benefits of school involvement and gender differences. Bartko and Eccles (2000) reported that participation in structured, pro-social activities was associated with positive functioning for youth as compared to participation in athletic activities. For instance, involvement in pro-social activities, such as volunteering and scouting, was found to be a protective factor in adolescent health-enhancing behaviors such as healthy diet, regular exercise, adequate sleep, good dental hygiene, and seatbelt use (Jessor, Turbin, & Costa, 1998).

Although, Eccles and Barber (1999) found that participation in team sports was linked to positive educational trajectories, it was also linked to high rates of drinking alcohol. Additionally, Sabo et al. (1999) reported a gender difference for involvement in team sports. They stated that team sports could be a protective factor against unwanted

teenaged pregnancy in females; however, adolescent male athletes did not show lower rates of sexual behavior and pregnancy involvement.

The poorest outcomes, including low grades, low perceptions of their own resilience, and high levels of both internalizing and externalizing symptoms, were noted for adolescents who reported little or no involvement in activities during 7th through 12th grade (Bartko & Eccles, 2003). Relatively younger students who have already experienced an age-disadvantage and dropped out of a team sport are at risk for a poor outcome if they have not become involved in other activities.

The relative age effect and sports. As noted previously, age at entrance into an activity confers a significant age-advantage for the eldest in the group, while an age-disadvantage is created for the youngest in the group. In an analysis of team rosters for all players registered for hockey league play beginning with Mite F (8 and below) and advancing through to Junior (19 and 20 year olds), Barnsley, Thompson, and Barnsley (1985) confirmed a relationship between month of birth and the likelihood of playing in the National Hockey league.

Specifically, those players with a relative age advantage (born in months of January to June) were more likely to participate in minor hockey and more likely to play for "top tier" teams than players who were born in the months of July to December and were age-disadvantaged (Barnsley & Thompson, 1988). This suggests that younger children will choose to leave an activity in which they are unable to compete effectively due to their lack of size, speed, and coordination. In other words their development, as opposed to their ability, appears to be a factor in their dropping out. The question then arises as to whether these relatively young students find other activities to become

involved in, or do they become disengaged with little or no participation in school extracurricular activities? One of the goals of this research is to examine the level and type of extracurricular activity participation by relatively young students.

The transition into middle school is a major negative life event for many early adolescents with a temporary decline in self-esteem scores; however, for some students the decline in self-esteem has long-term repercussions. In a retrospective study of unattached high school students, Mouton and Hawkins (1996) reported that these students became unattached to school after entering middle school. They conducted and analyzed in-depth, semi-structured interviews of 10 unattached students to get the unique perspective of the low-attached student. These students perceived themselves as unattached, indicating that they were largely not involved in anything at school and felt alienated from the school community, peers, and school personnel (Mouton & Hawkins, 1996).

There is little research on the extra-curricular activities of the relatively young adolescent with the exception of the work by Barnsley and Thompson and colleagues on relative age and team sports (Barnsley & Thompson, 1988; Barnsley et al., 1985; Barnsley et al., 1992; Thompson et al., 1991). This line of research indicated that when children are grouped by age for team sports, an age-advantage is created for those children born in the first six months of that particular sport's calendar year and conversely, an age-disadvantage is created for those children born in the latter part of the year. Over time these relatively younger children are at a higher risk for dropping out as they are unable to compete effectively in a number of given sports (Barnsley & Thomspon, 1988). Given that age-disadvantaged relatively-young adolescents have most

likely selected out of team sports by the time they have entered middle school, the question becomes: what type of substitute activity, if any, are they choosing?

School involvement has been shown to be an important part of a student's academic career and emotional development. Generally speaking, participation in structured versus unstructured activities, like "hanging out", yields more positive outcomes; however, the type of structured activity may also produce different outcomes. For example, involvement in team sports can be a protective factor against unwanted pregnancy in females (Sabo et al., 1999) but produce higher rates of alcohol consumption among males (Eccles & Barber, 1999).

Given that there has been little research involving the variable of relative age and involvement in different types of extracurricular activities, outside of sports, it will be important to ascertain what, if any, activities these "at-risk" youth enjoy. Although this research will primarily be looking at the level of participation (none, low, medium, and high), I will group activities into five types to get an indication of any trends in activity choice (Eccles, et al., 2003): pro-social, performance activities, team sports, school involvement, and academic clubs. This information will be valuable to educators, administrators, and parents who need to be aware of the privileging and marginalizing effects of relative age in order to take initiatives to compensate for the effects of educational and athletic age groupings.

Goodenow (1991) viewed school attachment through the motivational perspective of Maslow and suggested that, until social needs for belonging were met, higher motives for learning would not be present. Maslow's theory posits that the universal need for belonging, if not satisfied, prevents the pursuit of higher goals. Therefore, students who

do not experience a sense of being valued and welcome early in their educational careers ultimately have difficulty sustaining a commitment to academia throughout the lifespan (Goodenow, 1991). Relatively-young students may be at risk for becoming disengaged early on in their academic careers not only because they may be experiencing academic difficulties initially but also because they may not have been developmentally able to succeed in a sports program and are resultantly unable to compete effectively in these activities in middle school.

Academic Achievement

This literature review of academic achievement will focus on the impact of the organizational aspects of schools on the adolescent's social-emotional and behavioral development. Earlier sections of this paper have focused on how self-esteem, family environment, and extracurricular activities affect academic achievement; however, taking an ecological view of the interaction of different school features with the developmental needs of adolescents will aid in a greater understanding of the role of schooling in young people's development. Additionally, because research consistently shows that early adolescence plays an important role in a student's educational career through college, it is important to examine the role that schooling plays (Carnegie Council on Adolescent Development, 1995).

Studies have documented that, as they age, a substantial number of children show declines in their academic motivation and achievement and an increases in emotional distress during the middle school years (Eccles, Lord, & Roeser, 1996). These negative trends are particularly apparent among those youth who experienced academic or behavioral difficulties in the beginning of their school careers (Cairns, Cairns, &

Neckerman, 1989; Dishion, Patterson, Stoolmiller, & Skinner, 1991; Parker & Asher, 1987), and then among those children who had difficulty transitioning out of elementary school into middle school (Eccles, et al., 1993; Simmons & Blyth, 1987).

Eccles and Midgley (1989) suggested that school environments that emphasized social comparison and competition instead of personal improvement and mastery, teacher control in lieu of student autonomy, and unengaging tasks instead of challenging ones were unable to meet the developmental needs of the early adolescent and could help explain declines in academic achievement and social-emotional development. Eccles et al. (1993) argued that individuals have changing emotional, cognitive, and social needs as they mature and that schools need to change in developmentally appropriate ways if they are to motivate students as they mature. Eccles and Roeser (1999) proposed a framework within an ecological perspective in which schools are hierarchically ordered, beginning at the most basic level of the classroom and then moving up in complexity to the school as an organizational system embedded in a larger cultural system, to understand school influences.

Beginning with teacher beliefs, a high sense of teacher efficacy can promote achievement as well as a positive student-teacher relationship (Ashton, 1983; Midgley, Feldlaufer, & Eccles, 1988). Differential teacher expectations can create a self-fulfilling prophecy for some students. For example, researchers have found a fairly consistent negative effect of low teacher expectations for female students' achievement in math and science, for minority students' achievement in all subject areas, and for children from lower-social-class families' achievement in all subject areas (Eccles & Wigfield, 1985; Ferguson, 1998; Jussim, Eccles, & Madon, 1996; Valencia, 1991).

As children move from elementary school into secondary school, there occurs a decline in both adolescents' perception of emotional support from their teachers and in adolescents' sense of belonging in their classroom (Eccles et al., 1996). Research has shown that high quality teacher- student relationships can improve academic motivation and achievement, school engagement, self-esteem, and more general socio-emotional well-being (Deci & Ryan, 1985; Eccles et al., 1996; Goodenow, 1993; Midgley et al., 1989; Roeser, Midgley, & Urdan, 1996). In reference to the management of the classroom, student achievement and conduct are also enhanced when teachers establish efficient, smooth running procedures for monitoring student progress, providing feedback, enforcing accountability for work, and organizing activities (Eccles et al., 1998).

Research on motivation and the type of academic work provides support for John Dewey's (1990) proposal that academic work that is meaningful to the historic and developmental reality of the student will promote investment in learning and strong identification with educational goals. Valencia (1991) also described how curricula that represent the voices, images, and historical experiences of traditionally underrepresented groups are also important. The choice of materials, the design of learning activities, and the structure of lessons are just a few of the means by which teachers promote motivation, learning, and achievement (Blumenfeld, 1992; Deci & Ryan, 1985; Eccles et al., 1999).

The general school climate, including overall achievement goals, affects student's academic beliefs, affects, and behaviors (Maehr & Midgley, 1996; Roeser et al., 1996). Bandura (1994), for example, documented between-school differences in the personal

efficacy beliefs of teachers and found that these differences translated into teaching practices that undermined the motivation of many students. Additionally, adolescents' perceptions of the school climate are highly correlated with academic achievement. In a study of two high schools that were similar in intake characteristics, Fiquiera-McDonough (1986) found differences in academic orientation (ability oriented vs. diverse goals) and delinquent behavior. The high school characterized by competition and high grades had higher delinquency rates with student grades negatively correlating with involvement in delinquent behaviors, whereas the high school with more diverse goals and greater interest in non-academic needs had higher levels of school attachment and lower levels of delinquent behaviors (Fiqueira-McDonough, 1986)

Although a controversial practice, curriculum tracking has social ramifications as well as differential outcomes for diverse populations, as it not only influences academic achievement but also a student's peer group. It appears that tracking works best for students placed in high ability and gifted classrooms, high within-class ability groups, and college tracks (Dreeben & Barr, 1988; Fuligni, Eccles, & Barber, 1995; Kulik & Kulik, 1987). The effects found for adolescents placed in low-ability and non college tracks are negative and include poor attitudes toward school, feelings of incompetence, lower educational attainment, and problem behaviors both in and out of school (Oakes, Gamoran, & Page, 1992).

Because schools are embedded in much larger systems, researchers have looked at the macrosystem to understand the influences of the community and nation in which the school operates. Two macro characteristics of particular importance are school resources and the link of school to the job market. Student composition issues such as minority and

low ability enrollment levels, as well as levels of resources are major contributors to the continuing inequity of educational outcomes (Rutter, 1979). Schools that serve impoverished communities are less likely to offer high-quality remedial services or advanced courses that may promote abstract thinking; they have higher drop-out rates and achievement levels are usually very low (Council of the Great City School, 1992). Even adolescents who are extremely motivated may find it difficult to perform well under these educational circumstances (Eccles, 2004). The middle school in which this current research will be conducted operates within a community that appears to have abundant resources as evidenced by the high level of remedial services, advanced level courses, and a wide variety of extracurricular activities.

Schools play an important role in preparing youth to make the transition from school to the labor market. In studying the American vocational-educational system, Hamilton and Hamilton (1999) have found that if the system is not well connect to the labor market, it is difficult for new graduates to transition into the labor market's apprenticeship programs.

In summary, research indicates that it is important to take a systems-level and a developmental perspective on the ways in which schools affect adolescent development. The person-in-environment fit framework allows for the incorporation of these two perspectives to understand how the match or mismatch between the adolescent's changing needs and the school environment can affect academic achievement. The studies of classroom-level influences suggest that development is optimized when students are provided with challenging tasks that are of value to them. Furthermore, an

adolescent's perception of the school climate can strongly influence his or her attachment to school and level of delinquent behavior.

Academic tracking of students has produced divergent results with the gifted students benefiting and the low-ability students engaging in poorer outcomes. Ultimately, the community within which the school resides determines the level of resources available, what and how teachers teach, and school policy. The school climate is influenced by these policies and thus the relationship the school has with the families, community, higher educational institutions and the labor market is also influenced.

Summary of the Literature

Being relatively young puts children at a higher risk for experiencing both short- and long-term negative consequences than their age-advantaged older peers. In school, for example, children with an age disadvantage are more likely to be retained, referred for psycho-educational assessment, and placed in remedial classes (DiPasquale et al., 1980; Maddux, 1980). In youth sports, relatively young children are more likely to drop out or play at a competitively lower level (Barnsley & Thompson, 1988). Yet only two studies have considered the emotional consequences of these difficulties to the relatively young student, such as low self-esteem, (Thompson et al., 2004) and a disproportionately higher incidence of suicide (Thompson et al., 1999).

Traditionally, both research and practice within education have focused on individual, intrachild factors (e.g., Erikson, 1963; Kohlberg, 1969; Piaget, 1970). More recently, there has been a major movement in the social sciences to conceptualize and analyze the problems of individuals contextually rather than in isolation. Additionally, there has been a call to researchers to move away from clinical samples and towards

more representative samples that have been understudied in the past (Zaslow & Takanishi, 1993). The proposed study will use a person-in-environment fit perspective (Hunt, 1975) within a developmental framework, to analyze the affective, cognitive, and behavioral consequences of an understudied population, relatively young 7th and 8th graders.

The person-in-environment fit perspective lends itself to an analysis of negative outcomes in children, as a mismatch exists between their developmental needs and the systems they are a part of including school, home, and social. According to person-in-environment theory, behavior, motivation, and mental health are influenced by the fit between the characteristics individuals bring to their social environments and the characteristics of the social environments (Hunt, 1975). For instance, a poor fit between a relatively young child or adolescent's developmental needs and their school environment may help explain low self-esteem.

Purpose of the Study

The purpose of this investigation was to examine the cognitive, affective, and behavioral consequences of being relatively young among a sample of 7th and 8th graders. This study compares the total mean scores on self-reports of self-esteem, perceptions of family cohesion, and level of involvement in extracurricular activities in addition to academic achievement measured by standardized test scores in English and math in two groups; the relatively younger and the relatively older student. As there is little outreach in the school setting in terms of identification and prevention-planning for the relatively younger student, who may be at risk for emotional disturbance throughout his or her

academic career, the results of this study will be important to parents, educators and administrators.

Rationale and Hypotheses

Inasmuch as there are only two existing studies on relatively young students that have documented the negative personal outcomes resulting from the stress of being relatively younger than peers (Thompson et al., 1999; Thompson et al., 2004), this study will add to this literature by looking at measures of cognitive, affective, and behavioral outcomes for this understudied and vulnerable group. This research will examine relative age in two groups, the relatively younger student (H1) and the relatively older student (H2) (Thompson et al., 1999) to determine the relationship between self-esteem, perceptions of family cohesion, level of extracurricular activity, academic achievement, and relative age in a cohort of 7^{th} and 8^{th} graders.

The approach taken in this research is based upon the hypothesized link between relative age and poor outcomes personally and socially. Thompson et al (2004) proposed the following causal chain: first, relative age produces difference in achievement that are due to maturation, not ability; second, these differences lead to variation in self-esteem and confidence; third, low self-esteem and lack of confidence are associated with a child's inability to compete with his or her classmates leading to depression and hopelessness respectively; and finally depression and hopelessness, become precursors of self-harming behavior.

More specifically, based on the literature reviewed above, the following research hypotheses will be investigated:

HO1: The total mean Culture Free Self-Esteem Inventory - III (CFSEI-III) score of the younger 7th and 8th grade group will be significantly lower than the total score of the older 7th and 8th grade group.

HO2: The total mean Family Cohesion subscale score on the Family Environment Scale of the younger 7th and 8th grade group will be significantly higher than the total score of the older 7th and 8th grade group.

HO3: The level of extracurricular activities of the younger 7th and 8th grade group will be significantly lower than the level of extracurricular activities of the older 7th and 8th grade group.

HO4: The Academic Achievement as measured by standardized test scores in math and English of the younger group in the seventh grade will be significantly lower than the Academic Achievement of the older 7th grade group.

HO5: The Academic Achievement as measured by standardized test scores in math and English of the younger group in the 8th grade will be significantly lower than the Academic Achievement of the older 8th grade group.

CHAPTER III

Methodology

This chapter provides information concerning procedural issues, including participants and their solicitation and selection, measures used, and general procedures.

Participant Solicitation

The potential participants in this study consisted of male and female 7th and 8th grade students' ages 12 years 6 months through 14 years 5 months who were enrolled in middle school in a Long Island, NY community. I chose this age group for the study of the cognitive, affective, and behavioral differences between adolescents of differing relative ages because it is an age of tremendous personal growth as indicated in the literature review.

This Long Island school district in which I collected data is considered by the State of New York to have "low student needs in relation to district resource capacity" (The University of the State of New York, October 2006). Specifically, families who qualified for federally funded free and reduced lunch accounted for only 8.5% of the district enrollment compared to an average county rate of 18.1% (The University of the State of New York,, October 2006). Additionally, this district reported a racially homogenous student enrollment compared to the county. For example, the district reported a student body composed of 83.1% White compared to the county report of 65.0% White; 7.2% vs. 13.6% Hispanic; 1.9% vs. 13.5 Black (Not Hispanic); and 7.9% vs. 8.0% other respectively (The University of the State of New York, October 2006). Students with limited English proficiency accounted for 4.6% of total population, which was below the 5.6% county average.

Over a two-day period, I described the study to all 7th and 8th grade students (approximately 480) during health education classes that included in their curricula the study of self-esteem and family life. I explained the purpose and procedures of the study (see Appendix A) and distributed a packet to all students to take home and review with their parents. The packet contained two parent consent forms (See Appendix B; one original and one marked "COPY") and a copy of a minor assent form that students would sign on administration day (See Appendix C). The consent form provided parents with information necessary to contact the researcher for information or to obtain a copy of results. The minor assent form reiterated information given to the students during my solicitation speech. To protect the privacy of participants, I encouraged all students to return a signed parent consent form regardless of whether they decided to participate.

I placed sealed boxes in the all health education classrooms for students to place signed parent consent forms. After two weeks, I retrieved the boxes and tallied consent forms. During week three, I deemed a second mailing of consent forms necessary and placed new sealed boxes in appropriate locations. At the end of week five, I collected all sealed boxes and assigned students whose parents gave permission a random identification number.

Participants

One hundred and sixty two students of a possible 480 returned signed consent forms (a 34% return rate). Out of those 162, 90 had their parent's permission to participate (for an 56% participation rate); however, one student appeared to have been retained and was older than the appropriate age for his grade and was thus excluded leaving 89 potential participants. Additionally, three students who had received special

education services were excluded from the study to reduce a potentially confounding variable thus resulting in 86 participants. The consent and assent forms indicated that due to the sensitive nature of some of the questions, the participant could opt out of the study at anytime and instead be provided with alternative paperwork; five students opted-out of the study on the day of administration, reducing the number of participants to 81. Based upon birth date, I culled 47 participants (24 relatively older and 23 relatively younger students) from the 81 respondents.

I formed two groups from the 7th and 8th graders based upon students' relative ages: H1 (older 7th and 8th graders, had birth dates in the first quarter of the age-grouping year) and H2 (younger 7th and 8th graders, birth date in last quarter of the year). Although New York State has compulsory school attendance for students who are 6 years old, districts are allowed to set their own cut-off date. The Long Island district that I used for this research had a cut-off date of December 1st for the school year; therefore, the H1 (oldest) group of 7th and 8th graders had birthdates that ranged from December 1 through February 29th and the H2 **(**youngest) group had birthdates that ranged from September 1st through November 30th. I believe that by examining only those students that were on the extreme ends of being the youngest and the oldest in their grade I would be reducing a potentially confounding variable of the average-aged student. As indicated above, I did not use data from students who were relatively older due to retention. Additionally, I also excluded students who were extremely young due to "skipping" a grade or who were receiving English as a Second Language (ESL) services.

I reviewed school records of participants for students' birth dates, standardized test scores for math and English, gender, ethnicity, academic history, and SES (based

upon use of free or reduced lunch program participation). To protect participants' confidentiality, I assigned random number identifiers to the information collected. I determined the relative age of each student based upon birth date. Table 1 presents detailed information on the participants' relative age, SES, gender, grade, ethnicity, family structure, number of siblings, and birth order. For the purpose of statistical analysis, I compressed data in the categories of ethnicity and family structure as follows. Within the Non-white category this compression included seven Hispanic students, three Black students, and three Asian students. I compressed data from all non-traditional family structures reported by students. These included living with "mother only" (four students), "father only" (one student), or mother and step-parent (three students).

Table 1

Participant Descriptive Statistics

Descriptor		*N*	*Descriptor*		*N*
Relative Age			Ethnicity		
	Oldest	24		White	34
	Youngest	23		Non-White	13
Gender			Grade		
	Male	24		7th	28
	Female	23		8th	19
Lunch			Resides With		
	Free/Reduced	3		Mother and Father	39
	No	44		Non-Traditional	8
Number of Siblings			Birth Order		
	0	5		Oldest	21
	1	24		Middle	10
	2 or More	18		Youngest	18

I used χ^2 analyses and *t* tests to determine whether the relatively older and relatively younger 7th and 8th graders differed from each other on descriptive variables. There were no significant differences between the older and younger groups on the following descriptive variables: gender, χ^2 (1, N = 47) = .022, $p \leq$ .88; grade, χ^2 (1, N = 47) = .596, $p \leq$ .44; resides with, χ^2 (1, N = 47) = .710, $p \leq$ .40; place in family, χ^2 (2, N

= 47) = .20, $p \leq$ .906; and ethnicity, χ^2 (1, N = 47) = .056, $p \leq$ .81. I could not conduct chi-square analysis on number of siblings and SES because more than 33% and 50% of the cells respectively had expected counts of less than five.

Instruments

Culture-Free Self-Esteem Inventories-Third Edition (CFSEI-3; Battle, 2002). The Culture-free Self-Esteem Inventories for Children, Third Edition are norm-referenced, culture-fair self-report measure of self-esteem intended for use with students aged 6-0 through 18-11. The three inventories – Primary (ages 6-8), Intermediate (ages 9-12), and Adolescent (ages 13-18) – consist of 29, 64, and 67 items, respectively. This study used the Adolescent Form. The CFSEI-3 is partly based on Harter's (1998) neo-Piagetian stages of self-esteem. According to Harter's model, adolescents (ages 13-18) demonstrate increasing cognitive ability to abstract and therefore to view their self-concepts in abstract and sometimes contradictory terms (e.g., the flexible concept of having both introverted and extroverted characteristics) (Garcia, 2001).

Although some respondents from the 7th grade cohort were 12, the author of the CFSEI stated that the questions from the Intermediate form are very similar to those of the Adolescent form (J. Battle, personal communication, September 11, 2006) and therefore, the Adolescent form may be used with children who are 12. The Adolescent Form provides an additional score for Personal Self-Esteem in addition to the Global Self-Esteem Quotient (GSEQ). Responses to "yes"/ "no" questions will yield a GSEQ as well as the following subscale scores: Academic, General, Parental/Home, Social, and Personal. The CFSEI – Adolescent was normed on 821 students. Normative samples,

although not random samples, were relatively representative of students in the USA based on comparison census data.

The Adolescent form GSEQs yielded internal consistency coefficient alphas of .92 or higher. Mean coefficient alphas for each of the subscales exceeded or approached .80 (Battle, 2002). Test-retest reliability (2-week interval) for the Adolescent form GSEQ using a smaller, separate sample was .98. Test-retest reliability scores for the subscales of the CFSEI-III's Intermediate and Adolescent Forms ranged between .70 -.95.

The structure of the CFSEI-3 follows a theoretical rationale and items were developed by reviewing the self-esteem literature. In an item analysis, item discrimination coefficients met or exceeded .35, indicating that items differentiated adequately among test-takers of different ages. To examine the culture fairness of the items, Battle applied differential item functioning analysis, using logistic regression to all unique items. The DIF analysis indicated minimal detectable bias for gender and ethnicity. In terms of concurrent validity, the GSEQ of the CFSEI-3 correlated highly (median coefficient = .72) with the total scores on the Self-Esteem Index (SEI; Brown & Alexander, 1991), the Piers-Harris Children's Self-Concept Scale (Piers-Harris; Piers & Harris, 1984), and the Multidimensional Self-Concept Scale (MSCS; Bracken, 1992).

The CFSEI is an appropriate instrument for the study of self-esteem of middle school students inasmuch as it has been widely researched by the author (Battle, 1980; Battle et al., 1986; Battle, Jarratt, Smit, & Precht, 1988) as well as independent researchers (Hayes & Drummond, 1998; Kroner & Sinha, 1989). Additionally, the CFSEI was used by Thompson et al. (2004) in the study of relative age and the development of self-esteem.

Family Environment Scale (FES; Moos & Moos, 2002). The FES is a 90-item true-false questionnaire that is widely used to assess a person's perceptions of his or her family environment and can be completed by the parent and/or child (over 11 years). Although there are three forms, the focus of this research is on the Real Form (Form R) that has three underlying dimensions: a) a Relationship dimension that assesses cohesion, expressiveness, and conflict among family members; b) a Personal Growth dimension that addresses issues related to family independence, family achievement orientation, family intellectual-cultural orientation, family active-recreational orientation, and family moral-religious emphasis; and c) a System Maintenance dimension that measures family organization and family control. Each subscale score is derived from a sum of the respondent's true or false replies to 9 statements describing the 10 separate aspects of the family environment. Participants complete the entire questionnaire by making marks of T (True) or F (False) on the questionnaire. A raw score is calculated for each subscale and then converted into a standard score (Moos & Moos, 2002).

This dissertation used the cohesion subscale of the FES to assess family cohesion. The family cohesion subscale assesses the degree of commitment, help, and support family members provide for one another. The remaining subscales within the dimension of Relationships include family expressiveness and family conflict. These subscales measure the degree to which family members are encouraged to express their feelings and the amount of openly expressed anger and conflict among family members, respectively, and although administered, were not used in this study.

Of the 10 aspects of family environment tapped into by the FES subscales, cohesion and expressiveness, from the Relationship Dimension, and intellectual-cultural

orientation from the Personal Growth Dimension were most closely associated with children's cognitive and social development (Moos & Moos, 2002). One of the many reasons for specifically examining family cohesion in this research of a relatively young student's cognitive, affective, and behavioral development is that it appears to be the linchpin of the FES Relationship dimension. It is highly correlated with expressiveness, and families that are high on cohesion also tend to be low on conflict (Moos & Moos, 2002).

Additionally, expressiveness in conjunction with cohesiveness has been shown to promote cognitive competence and peer acceptance (Bullock & Pennington, 1988), and it has also been shown that families high in cohesion provide environments that encourage better verbal communications (Garfinkle, 1982). Finally, the FES is an instrument that has a long history of use in research and practice. Adequate reliability and validity of the entire scale and individual subscales have been reported by Moos and colleagues (Moos 1990; Moos & Moos, 2002) as well as independent researchers (Aydin & Oztutuncu, 2001; Hoge et al., 1989; Roosa & Beals, 1990).

In an effort to clarify the role of cohesion in the family environment in regard to adolescents' negative thoughts and depressive mood, Aydin and Oztutuncu (2001) investigated the role of perceived family cohesion in Turkish adolescents. These researchers reported that adolescents who perceived higher family cohesion experienced fewer negative thoughts, which was similar to findings with youth in Western cultures (Aydin & Oztutuncu, 2001). Billings and Moos (1984), in a study of American adolescents, hypothesized that low-cohesive families were less supportive of each other that may lead to low self-esteem, anxiety, and depression.

Normative data for the Form R subscales was obtained from 1,125 normal and 500 "distressed" families from many geographic locations. The sample included single-parent families, multi-generational families, ethnic minority families, and families of all age groups. Distressed families scored lower on cohesion, expressiveness, independence, and intellectual and recreational orientation and higher on conflict and control when compared to normal families. These differences existed even after statistical controls were instituted for group differences on socioeconomic and family background characteristics (Moos & Moos, 1986).

The 10 subscales of the FES generally have been shown to have acceptable levels of reliability in many samples. Internal consistency estimates in a large community sample range from $\alpha = .61$ to $\alpha = .78$ (Moos & Moos, 1986). Two-month test-retest reliability in a smaller community sample ranged from $r = .68$ to $r = .86$. Moos and Moos (1986) provide a good summary of over 100 research articles using the FES that attest to its correlation with other measures of family functioning, its ability to differentiate distressed from non distressed families, and its sensitivity to treatment effects (Kamphaus & Frick, 2001).

Inventory of extracurricular activities and demographic survey. Adolescents completed a check-off list of all extracurricular activities available before, during, and after school (see Appendix E). These activities were grouped into five types according to a classification used by Eccles and Barber (1999): pro-social activities (volunteer and community service-type activities); performance activities (school band, drama and/or dance); team sports (one or more school athletic teams); school involvement (government, pep club, and or cheerleading); and academic clubs (debate, foreign

language, math or chess clubs, science fair, or tutoring). Students checked off those activities in which they were involved. I tallied participant's responses to determine their activity level. The survey also included questions regarding demographic information to augment the review of records. Specifically, these questions addressed family structure (intact or non-traditional family structures such as living with mother only, father only or with a step-parent), and academic history (held back or pushed ahead by parent or school and currently or in the past received special education services).

School record review. I reviewed the students' records to ascertain results from standardized measures of English language arts and math assessments taken in the winter of the previous school year. I averaged these standardized scores for 7th graders and 8th graders independently because the standardized tests were different for each grade. I also reviewed the students' records to determine relative age, gender, ethnicity, and qualification for free or reduced lunch to determine socio-economic status.

Procedure

After parents gave consent for participation, I assigned all respondents a random numerical identifier. All folders contained the student's name on the outside while all papers within the folder had the participant's numerical identifier written at the top. To protect the privacy of participants on the day of administration, all students received folders; however, the folders varied by their contents. Participants' folders contained assent forms (see Appendix C) and the three questionnaires; Inventory of Extracurricular activities, the CFSEI-III, and the FES. Each questionnaire had the student's randomly assigned number placed on the face of the instrument. Students did not write their names on any paper other than the assent form. Non-participating students also received folders,

but instead of assent forms and questionnaires, these folders contained alternative paperwork, such as crossword and word search puzzles. After I collected folders, I removed the questionnaires and disposed of the folders.

On each day of testing, I followed a standard procedure. Students attended their regularly scheduled health or physical education class. I then explained, using a script (see Appendix D), how each student would be handed a folder, but that the folder's contents would differ depending upon whether their parents consented to their participation in the study. I reminded the students that they previously received a copy of an assent form for review and that in order for them to participate in the study they needed to sign the copy found in their folders and return it with their questionnaires. For those students whose parents did not consent to participation, folders contained puzzles.

I instructed the class to read the directions on each measure and to answer all questions as honestly as possible. I also assured the students that all information would be kept confidential as outlined in the assent form. I then read the last paragraph of the assent form. The consent and assent forms indicated that due to the sensitive nature of some of the questions, the participant could opt out of the study at anytime and instead be provided with alternative paperwork; four students opted-out of the study on the day of administration. When questions arose during testing, I approached each student and spoke to them privately.

Two minutes before the end of the class, I instructed students who had not completed the surveys to put their pencils down and place all papers into their folder. I collected all folders and placed them in a box that was sealed immediately. I followed this procedure at every administration. I removed sealed boxes from the school. I then

removed and separated documents from the folders. I recorded assent or non-assent. Instruments were then scored accordingly; the CFSEI-III was scored electronically, while I scored the FES and inventory of extracurricular activities.

The respondents completed the surveys during one physical education class while non-participants enjoyed alternative work. Once the surveys had been collected, I destroyed the list of names and corresponding numbers.

CHAPTER IV

Results

This chapter presents the results of hypotheses testing for relatively younger and older students. The chapter also presents the results of hypotheses testing using scores from all 81 participants, as well as describes the characteristics of participants in this larger group.

Inferential Results

Table 2 below presents the two groups' means and standard deviations for all dependent variables. Mean scores of 43 to 57 on the CFSEI-3 fall within the average range of the global self-esteem index and account for 50% of the population (Battle, 2002). The relatively older group with a mean score of 43.08 and the relatively younger group with a mean score of 44.57 both fell within the average range of self-esteem for adolescents. Standard scores on the FES Cohesion scale between 42 and 59 are considered to fall within the average range (Moos & Moos, 1986). Both groups of older and younger 7th and 8th graders perceived average levels of family cohesiveness. According to leading experts in child development at Yale University, children ages 5 to 18 are not overscheduled. The average student reported an average of 5 hours per week of organized activities compared with around 15 hours of television watching (Mahoney, Harris, & Eccles, 2006). The relatively older and younger middle school students in my research reported participating in an average of 2.75 and 3.30 activities respectively. According to school personnel, each activity lasts approximately 1.5 hours; accordingly participants were spending between 4 and 5 hours per week in extracurricular activities, which appears to fall within the average range (Mahoney et al., 2006).

The New York State Education Department requires that all students in grades 3 through 8 take part in the annual NYS Testing Program in English and math. These tests are required by No Child Left Behind (NCLB) and are used to assess a child's progress. The minimum score for meeting standards in English and math is a 650. It appears that, on average, all 7th and 8th grade participants met the minimum for meeting the standard.

I used independent samples *t* tests to compare the means for the relatively older and younger 7th and 8th graders on scores on the CFSEI, FES, and the extracurricular inventory as well as the standardized test scores that served as dependent variables. According to Cohen's (1992) power analysis, assuming a large effect size, a minimum of at least 26 cases per cell are required to achieve significance at the $p < .05$ level. The resulting sample size of 47 was not adequate to detect a large effect at the .05 level for this type of study (Cohen, 1992); there were no significant differences between the two groups for any comparison.

Table 2 shows the results of these comparisons. Hypothesis I (i.e., that the total mean CFSEI-III score of the younger 7th and 8th grade group would be significantly lower than the total score of the older 7th and 8th grade group) was not confirmed. Hypothesis II theorized that the total mean Family Cohesion subscale score on the Family Environment Scale of the younger 7th and 8th grade group would be significantly higher than the total score of the older 7th and 8th grade group. This hypothesis was also not supported. Hypothesis III held that the level of extracurricular activities of the younger 7th and 8th grade group would be significantly lower than the level of extracurricular activities of the older 7th and 8th grade group. Data analysis did not support this hypothesis. Hypotheses IV and V speculated that the academic achievement, as measured by standardized test

scores in math and English, of younger 7th and 8th grades respectively would be significantly lower than the academic achievement of older 7th and 8th graders. Thus, none of the hypotheses were supported.

Table 2

Results of t Tests *for Dependent Variables Using Group as the Independent Variable*

Variable	Group	*N*	Mean	*SD*	*t*	*df*	*p* =
CFSEI-III	1	24	43.08	12.21	-.404	45	.688
	2	23	44.57	12.97			
FES	1	24	49.83	14.82	-.755	45	.454
	2	23	53.09	14.72			
Extracurricular	1	24	2.75	.85	-1.10	45	.279
	2	23	3.30	2.32			
Math							
7th	1	13	687.62	32.76	-.509	25	.615
	2	14	694.50	37.12			
8th	1	11	674.91	18.93	.410	15	.688
	2	6	671.33	13.00			
English							
7^{th}	1	13	694.08	41.55	.422	27	.662
	2	15	691.47	40.27			
8th	1	11	671.55	15.05	-.547	16	.592
	2	7	677.57	31.76			

Note. 1 = Older, 2 = Younger

To determine the effect sizes of these analyses, I converted the *t*'s in Table 2 to *r*'s using Rosenthal and Rosnow's (1991) formula: $r = \sqrt{\frac{t^2}{t^2 + df}}$. The effect sizes for Hypotheses I, II, and III are .06, .11, .16, respectively. For 7th graders, the effect size for Hypothesis IV is .13 and for Hypothesis IV is .08. Effect sizes for 8th graders for Hypotheses IV and V are .11 and .14 respectively. In keeping with the lack of significance at the $p < .05$ level, these effect sizes are small (Cohen, 1992).

Expanded Analysis

I conducted an expanded analysis to include all 81 respondents and thus increase the statistical power of the analyses. Similar to the original analysis, this analysis used a between groups design; however, I expanded the birth date range to include those with birthdates between December 1st and May 31st (older) and those with birthdates between June 1st and November 30th (younger).

Participant descriptives for expanded analysis. Table 3 presents detailed information on the expanded group's relative age, SES, gender, grade, ethnicity, family structure, number of siblings, and birth order. For the purpose of statistical analysis, I compressed data in the categories of ethnicity and family structure as follows. Within the Non-white category this compression included seven Hispanic students, three Black students, and three Asian students. I compressed data from all non-traditional family structures reported by students. These included living with "mother only" (four students), "father only" (one student), or mother and step-parent (three students).

I used χ^2 analyses and *t* tests to determine whether the expanded group of relatively older and relatively younger 7th and 8th graders differed from each other on descriptive variables. I did not use data from students who were relatively older due to

retention or students who were extremely young due to "skipping" a grade. Additionally, I also excluded those students who received English as a Second Language (ESL) services or special education services from the analysis. There were no significant findings between the older and younger groups on the following descriptive variables including: gender, χ^2 (1, n = 81) = .33, $p \leq$ .56; grade, χ^2 (1, n = 81) = .54, $p \leq$ .46; resides with, χ^2 (1, n =81) = .12, $p \leq$ .73; place in family, χ^2 (2, n = 81) = 1.31, $p \leq$ .52; and ethnicity, χ^2 (1, n = 81) = .89, $p \leq$ .35. I could not conduct chi-square analysis on the number of siblings or SES because more than 33% and 50% respectively of the cells had expected counts of less than five.

Table 3

Expanded Participant Descriptive Statistics

Descriptor		*N*	*Descriptor*		*N*
Relative Age			Ethnicity		
	Oldest	38		White	60
	Youngest	43		Non-White	21
Gender			Grade		
	Male	39		7th	44
	Female	42		8th	37
Lunch			Resides With		
	Free/Reduced	7		Mother and Father	68
	No	74		Non-Traditional	13
Number of Siblings			Birth Order		
	0	8		Oldest	37
	1	37		Middle	14
	2 or More	36		Youngest	30

Inferential Results for the Expanded Group

Table 4 below presents the two expanded groups' means and standard deviations for all dependent variables. Mean scores of 43 to 57 on the CFSEI-3 from fall within the average range of the global self-esteem index and account for 50% of the population (Battle, 2002). The relatively older group with a mean score of 46.32 and the relatively younger group with a mean score of 45.35 both fall within the average range of self-esteem for adolescents. Standard scores on the FES Cohesion scale between 42 and 59 are considered to fall within the average range (Moos & Moos, 1986). Both groups of older and younger 7th and 8th graders perceived average levels of family cohesiveness. The relatively older and younger middle school students in my research reported participating in an average of 2.95 and 3.30 activities respectively which translates into approximately between 4 and 5 hours per week in extracurricular activities, which appears to fall within the average range of 5 hours a week cited by Mahoney and colleagues (2006). It appears that on average, all 7th and 8th grade participants met the minimum for meeting the standard of a score of 650 set by the New York State Department of Education.

I used independent samples *t* tests to compare the means for the relatively older and younger 7th and 8th graders on scores on the CFSEI, FES, and the extracurricular inventory as well as the standardized test scores that serve as dependent variables. According to Cohen's (1992) power analysis, assuming a large effect size, a minimum of at least 26 cases per cell are required to achieve significance at the $p < .05$ level. The resulting sample size of 81 should have had enough power to detect a large effect at the

.05 level for this type of study (Cohen, 1992); however, no significant differences were found between groups for any comparison.

Thus, Table 4 shows that Hypothesis I (i.e., that the total mean CFSEI-III score of the younger 7th and 8th grade group would be significantly lower than the total score of the older 7th and 8th grade group) was not supported. Hypothesis II theorized that the total mean Family Cohesion subscale score on the Family Environment Scale of the younger 7th and 8th grade group would be significantly higher than the total score of the older 7th and 8th grade group. This hypothesis was not supported. Hypothesis III held that the level of extracurricular activities of the younger 7th and 8th grade group would be significantly lower than the level of extracurricular activities of the older 7th and 8h grade group. Data analysis did not support this hypothesis. Hypotheses IV and V speculated that the academic achievement, as measured by standardized test scores in math and English, of younger 7th and 8th grades respectively would be significantly lower than the academic achievement of older 7th and 8th graders. These hypotheses were not supported using the expanded group that included all respondents.

To determine the effect sizes of these expanded analyses, I converted the *t*'s in Table 3 to *r*'s using Rosenthal and Rosnow's (1991) formula. The effect sizes for Hypotheses I, II, and III are .04, .09, .10, respectively. For 7th graders, the effect size for Hypothesis IV is .15 and for Hypothesis V is .07. Effect sizes for 8th graders for Hypotheses IV and V are .15 and .05 respectively. In keeping with the lack of significance at the $p < .05$ level, these effect sizes are small (Cohen, 1992).

Table 4

Results of t Tests *for Dependent Variables Using Expanded Group as the Independent Variable*

Variable	Group	*N*	Mean	*SD*	*t*	*df*	*p* =
CFSEI-III	1	38	46.32	11.21	.377	79	.707
	2	43	45.35	11.81			
FES	1	38	53.58	13.35	-.747	79	.457
	2	43	55.74	12.71			
Extracurricular	1	38	2.95	1.37	-.864	79	.390
	2	43	3.30	2.18			
Math							
7th	1	19	681.37	31.17	-.968	41	.339
	2	24	692.54	41.96			
8th	1	19	674.89	25.44	.832	33	.411
	2	16	667.25	28.93			
English							
7th	1	19	689.74	38.93	.430	42	.670
	2	25	684.48	41.12			
8th	1	19	683.47	28.79	.293	34	.771
	2	17	680.41	33.89			

Note. 1 = Older, 2 = Younger

Summary

The above analyses that also included an alternative analysis with the entire sample yielded no significant differences between the younger and older groups on any dependent variables. Thus, all five hypotheses were not supported at the customary $p < .05$ level. These results are contrary to findings by Thompson and colleagues (2004) who found that the self-esteem of the relatively younger student was lower than the self-esteem of the relatively older student. I discuss possible reasons and explanations for not finding similar results in Chapter 5.

CHAPTER V

Discussion

The purpose of this study was to investigate cognitive, affective, and behavioral differences between relatively older and relatively younger 7th and 8th graders. Research has shown that there are both short- and long-term negative consequences to being the youngest in an activity that is grouped by age. The negative cognitive effects for the relatively younger student include scoring significantly lower on math and science tests (Bedard & Dhuey, 2006), increased odds of being referred for pyschoeducational assessment (DiPasquale et al., 1980), receiving remedial services (Maddux, 1980), and being retained (Langer et al., 1984). Long-term, the relatively younger student is less likely to enroll in pre-university academic programs during the final years of high school and subsequently enter university (Bedard & Dhuey, 2006). Negative behavioral outcomes were demonstrated in extracurricular activities where the relatively younger child is more likely to drop out of competitive sports and when they do participate they do so at a lower level (Barnsley et al., 1992). Additionally, Polizzi et al. (2007) reported that a greater number of summer-born children (the youngest in that cohort) than expected were diagnosed with behavioral and emotional disorders. Research into the negative affective outcomes has also demonstrated that a relatively younger entry date into school is associated with lowered self-esteem several years later (Thompson et al., 2004).

The research conducted on the possible negative outcomes of being relatively younger took place in an affluent Long Island, NY suburban community. Generally, the hypotheses investigated held that the difficulties encountered by the relatively younger

child during their academic careers would be evident in a lowered self-esteem, less participation in extracurricular activities, and lower scores on measures of English and math achievement. As a gauge of development, middle childhood versus early adolescence, I also hypothesized that the relatively younger student would perceive a higher level of family cohesion due to their immaturity.

The findings from the data analyses reveal no differences between the relatively younger and relatively older 7th and 8th grade participants on cognitive, affective, and behavioral indicators. Specifically, younger 7th and 8th graders report the same level of self-esteem, perceptions of family cohesiveness, and level of extracurricular activities as relatively older 7th and 8th graders. Additionally, the academic achievement of the relatively younger groups was not significantly different from the relatively older group on tests of English and math proficiency. These findings were not in line with other research and do not support the stated hypotheses that there would be significant differences between the groups.

Limitations

The affluence and the homogeneity of the community in which I conducted the study may have mediated the effects of relative age. Specifically, this school district is considered by the State of New York to have "low student needs in relation to district resource capacity," (The University of the State of New York, October 2006) and thus only 8.5% of families qualified for federally funded free and reduced lunch compared to an average county rate of 18.1% (The University of the State of New York, October 2006). In reference to the homogeneity, the student body is composed of 83.1% White compared to the county report of 65.0% White; 7.2% vs. 13.6% Hispanic; 1.9% vs. 13.5

Black (Not Hispanic); and 7.9% vs. 8.0% other respectively (The University of the State of New York, October 2006). Moreover, students with limited English proficiency accounted for 4.6% of total population, which was below the 5.6% county average. A longitudinal study looked at factors that influenced the academic performance of pre-kindergarten students during their first three years of elementary school found that relative age as well as SES significantly influenced academics; relatively older students significantly outperformed relatively younger students with the greatest differences for those from economically disadvantaged backgrounds (Henry et al., 2001). District demographics indicate that most likely the students in this current study were from advantaged backgrounds. Furthermore, based upon an unpublished study by Bishop (2004), it appears that the incidence rate of "redshirting" in this affluent district is about 6% per year which is below the 9% reported by the National Center for Education Statistics (West, Meek, & Hurst, 2000). These factors in combination with the reported average family cohesion may have prevailed over the negative outcomes associated with being relatively young.

There were several other limitations to the study besides the demographics of the district, including a small sample size. Several issues influenced the size of the sample that I discovered over the course of time. District policies do not allow teachers to accept gifts. The principal of the middle school strictly adhered to this policy, and because I am a district employee, I believed that it was important that I adhere to the district's policies upon entering the school's microsystem. Had I been able to provide incentives to teachers, I might have been able to obtain a larger sample. However, this policy did not preclude me from bringing in pizza during data collection days and had I thought of this

earlier in the process, I might have been able to stave off the next hurdle I encountered; the teachers were resistant to offering incentive to students.

Although the principal initially suggested that extra-credit points were an appropriate incentive for student participation in the research, ethically I believed that all students should be eligible to receive extra-credit regardless of their participation level. Therefore, I countered with the idea that all students who returned a completed consent form, regardless of their decision to participate, should receive the extra-credit. The principal agreed, however, when it came time to do the actual data collection several months later, the teachers dismissed the idea of an incentive. They held that incentives for returning a signed consent form, regardless of participation level, were unnecessary because this type of activity was a normal part of school life. Coincidentally, it was at this time that I learned that the principal was retiring and was no longer available to consult with about the research as she was too busy. Furthermore, I believed that going above the teachers' collective heads would be detrimental to the level of participation because I was dependent upon them to intermittently encourage the students to return the consent forms.

Implications

While the research I conducted did not provide results that lend evidence to existing "relative age" research, continued research is necessary as there is ongoing debate about how relative age affects all the children in a classroom. A recent New York Times article entitled "When Should a Kid Start Kindergarten?" (Weil, 2007) explored the perpetual question asked by parents, teachers and administrators. School readiness is at the forefront of many parents', educators', administrators', and legislators' minds due to calls for accountability measures and the resultant escalation in the kindergarten

curriculum. This escalation is also due in part to the increased enrollment in pre-school, "redshirting," and high-stakes testing in later grades.

From a maturationalist viewpoint, development must precede learning, therefore, by raising the age of entry to kindergarten or having the child wait out another year, kindergarten success will ensue. Conceptually, this follows the distinction made by Kagan between the "readiness to learn" and "school readiness" (Kagan, 1992; Kagan & Neuman, 1997). The major pitfall of current school readiness practices lies in the insistence that readiness is a unitary construct, with the child required to demonstrate readiness before officially entering the school system (Carlton & Winsler, 1999). From a sociocultural perspective, waiting has no place because it deprives children of the benefical interactions in settings with skillful teachers who promote learning.

Kindergarten attendance is still optional in many districts and not all districts offer pre-kindergarten classes, yet they provide children with an undisputed advantage in first-grade outcomes (Entwisle & Alexander, 1999). Moreover, the structure of teaching in kindergarten classes is very different from grade one. Kindergarten provides the transition between the play-based preschool and home environment to the academically based environment of grade school, and ensures that children have the opportunity to consolidate skills relevant to grade-school learning.

Currently, when a state's cut-off date comes close to a child's birthday, upper middle class parents at a rate of approximately 7% (Graue & DiPerna, 2000) tend to "red-shirt" their child, especially boys, to give them the advantage of being the oldest when they enter kindergarten. However, children of middle class and lower-middle class families do not always have that option as it may mean another year of day care expense.

Furthermore, many states in an attempt to address the accountability movement, i.e., No Child Left Behind, have or are in the process of moving their cut-off date to September 1st. This means that children will be at least 5 years old when they start kindergarten and this may give states a short-term bump in test scores. However, this type of change penalizes those children who are most at risk, those whose families cannot afford a quality pre-school program and must wait another full year before entering formal schooling thus falling even further behind.

Additionally, research into "season of birth" that some believe to be another facet of the relative age phenomenon is also very important. Research from this vantage point may offer additional clues into why the relatively younger student often faces cognitive, affective, and behavioral difficulties. Professor Huntington, who documented the "season of birth" phenomenon in his seminal work from 1938, would be pleased to see that this research has continued into the next millennia. This line of research indicates that environmental influences such as quantity of sunlight and maternal infection can impair fetal central nervous system development. Resultantly, summer born children, who were in mid-gestation during the winter months, appear to be at higher risk of affective and learning-based disorders. For instance, diagnoses of dyslexia and specific LD are more common in children born in the summer months (Livingston, et al., 1993; Polizzi, et al., 2004). Additionally, Greer (2005) reported that summer born children had a greater incidence of anxiety and other internalizing problems.

Whereas England and New Zealand have multiple kindergarten entry dates, schools in the United States have single annual cut-offs. A paradigm shift from a maturationalist view to a bidirectional child-centered view may be necessary to level the

playing field for the relatively younger student. This shift would demand greater flexibility in curriculum practices to make the school ready for the child at every grade. Beginning with preschool, Carlton and Winsler (1999) describe the subsystems within the school district that would need to be addressed to implement such a shift: outreach to preschools, smaller class size, more comprehensive and dynamic assessment practices, increased teacher training, and more emphasis on parent involvement.

For middle school students, this paradigm shift translates into academic as well as mental health supports. Although the middle school in which the research was conducted has before and after school homework help and tutoring, there were no mental health counselors available at these times. Additionally, there was no recognition of this "relatively younger" group being at risk for any type of difficulties. Recognizing the problem would be the first step and then offering assistance in the form of transition services for newly entering 6th graders, for example, would be an additional step. Offering this type of service would be consistent with this paradigm shift inasmuch as it would meet the needs of the person and provide a better person-in-environment fit.

Even if it is not clear whether the difficulties experienced by the summer-born or relatively-younger students are due to their relative age or whether these difficulties are due to their season-of-birth, it is important to understand that these children should be considered to be an "at risk" group for cognitive, affective and behavioral difficulties. Additionally, when parents, educators and administrators make decisions about "red-shirting" or cut-offs dates they need to understand that a child's potential cognitive, affective or behavioral problems may not be best addressed with the "gift of time" but instead may need to be addressed by trained professionals.

Appendix A

Script for Recruitment of Participants

"My name is Josie Bishop and I am school psychologist at Franklin Early Childhood Center and also a graduate student in the Ph. D. Program in Educational Psychology at the City University of New York (CUNY) Graduate School and University Center. I am interested in studying how 7th and 8th grade middle school students feel about themselves and their families and how these feelings relate to how well they do in school and their participation extracurricular activities. I am particularly interested in the feelings of students who are the oldest and the youngest in their class. I would like your help with this study. If you and your parents choose to have you participate in this study, you will complete three questionnaires concerning your feelings about yourself, your relationship with your family and your extracurricular activities. I will then review your records to get your birth date and scores from standardized tests. You may find the sensitive nature of some of the questions upsetting. In that event, I recommend that you stop filling out the forms, raise your hand and I will provide you with alternative paperwork. I hope that the information I collect from you will increase our knowledge of the impact of being relatively younger or older than classmates and help people who make decisions about students to make better decisions particularly for students who are relatively younger than others in their class. I will not share any of your questionnaire results or grades with anyone, including school officials, teachers, or parents. I will keep all your responses confidential and only report the results of the research for students as a group. I will share the results of the study with you if you would like. I hope you will consider participating in this study. Do you have any questions? (Answer questions). Your parents will be sent a packet of information telling them about the study so that they

can determine if they will or will not give their permission for you to participate. Please bring the completed and signed form, regardless of whether or not your parents want you to participate, to your health education class and place it in the sealed boxes provided. On questionnaire administration day, all students will be given a folder. If your parents have agreed to allow you to participate, you will be asked again if you'd like to be in the study and at that time, if you want to participate, you can indicate your willingness to do so and fill out the questionnaires. If your parents do not want you to participate in the study, you will be provided with puzzles and light reading in identical folders so as to protect the confidentiality of your family's decision not to have you participate."

Appendix B

Parent Permission Form

My name is Josie Bishop and with your permission, I would like to invite your son or daughter to take part in a study. This study investigates how seventh and eighth grade middle school students feel about themselves and their families and how these feelings relate to how well they do in school and their participation in extracurricular activities. I am a school psychologist in the Hewlett-Woodmere School district and a graduate student in the Ph.D. Program in Educational Psychology at the City University of New York (CUNY) Graduate School and University Center. This study is my doctoral dissertation.

If you grant permission, and if your son or daughter agrees to be in the study, he or she will be asked to do the following:

1. Complete a questionnaire about his or her background (age, gender, grade, education, etc.);
2. Complete a survey about his or her extra-curricular activities;
3. Complete a survey regarding his or her feelings about themselves;
4. Complete a survey about his or her feelings about your family.

I will give them these questionnaires and surveys during one health education class period. I will also need to look at your child's school records to obtain scores on recent standardized tests. No information from this study will become part of a student's school records or be shared with school personnel. Due to the sensitive nature of some of the questions, your son or daughter may feel uncomfortable about continuing with the survey. In that event, the researcher will advise the student to discontinue participation and the student will be provided with alternative paperwork.

Participation in the study is completely voluntary; withdrawal is possible at any time. Although your child will receive no direct benefits, this research may help people who make decisions about students to make better decisions particularly for students who are relatively younger than others in their class. All information provided by your son or daughter will be kept strictly confidential. To ensure this, I will ask your children not to put their names on the questionnaires. Any personal information will be used by me for statistical purposes only. It is expected that approximately 300 students will participate in this research. At the conclusion of the study, you can get the results by emailing me at jobishop1@verizon.net or contacting me at (516)944-5877.

Your son or daughter will be given two bonus points to be added to their final grade in their health education class for returning a completed and signed form regardless of whether parental consent is or is not given. You may review the surveys in person prior to signing the consent by contacting me at the e-mail or phone number noted above. Please sign in **one** of the spaces provided on the back of this page and have him or her return this form within a week to the student's health education teacher. Further instructions concerning the dates of administration will be given to the students by their health education teacher during class. Any questions may be directed to Josie Bishop at (516)944-5877. If you have questions about the rights of participants in this study, you can contact Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu. The research project will be supervised by Professor Tryon, who is a member of the CUNY Graduate Center faculty and can be reached at (212)817- 8293 or gtryon@gc.cuny.edu.

You have received a copy of this consent document to keep. Please sign below to indicate whether or not you give permission for your daughter or son to be in the study and give this form to them to bring into their health education class.

Student's Name: _____

Agreement to Participate

I give consent for my son or daughter to participate:

Parent's Signature:	Investigator's Signature:
Date:	Date:

Declination to Participate

I decline to give consent for my son or daughter to participate:

Parent's Signature:	Investigator's Signature:
Date	Date

Appendix C

Assent Form for Minors

My name is Josie Bishop. I am a graduate student in the Ph. D. Program in Educational Psychology at the City University of New York (CUNY). I would like your help with a study I'm doing. I am doing a research study about how 7th and 8th graders feel about themselves and whether those feelings are different for students who are the youngest or the oldest in their grade. Your parent has given me permission to ask you to fill out three surveys and review your school records for test scores. These surveys have questions about your feelings, your family, and how you like to spend your time. The surveys should take about 30 minutes to complete. It is expected that approximately 300 students will participate in this research.

You can decide whether or not you want to fill out the surveys. It's up to you. You may decide to stop at any time, or skip questions. Whatever you decide is fine with me, and you or your family will not get into any trouble if you decide to stop. I am going to put together all the information I collect from you and all the other kids I am surveying and make a report about middle school students their feelings depending on their age. Although you will receive no direct benefits, this research may help people who make decisions about students to make better decisions particularly for students who are relatively younger than others in their class.

All information provided by you will be kept strictly confidential. That means that no one will know who this information came from, not even your parents. If you feel uncomfortable about continuing with the survey, due to the sensitive nature of the question, please stop your work, raise your hand and the researcher will provide you with alternative paperwork.

Do you have any questions for me? If you have any questions later you may contact me at (516)944-5877 or jobishop1@verizon.net . For questions about your rights as a research participant, you may contact Kay Powell, IRB Administrator at the CUNY-Graduate Center Office of Sponsored Research City University of New York, at (212)817-7525 or at kpowell@gc.cuny.edu.

If it is OK with you to begin, I need you to sign the statement below. I'll read it to you. Let me know if you don't understand and I'll explain it to you.

I voluntarily agree to participate in this study, and to fill out the surveys. I understand what my participation in this study is voluntary and that I am free to stop at any time. A copy of this form has been given to me.

Agreement to Participate

Name (print): _____

Participant's Signature	Investigator's Signature
Date	Date

Appendix D

Script for Explanation of Procedures on the day of Survey Administration

"Today I am going to collect information from those student's whose parent's have agreed to allow them to participate in the research I am conducting. Although all students will be receiving a folder, the contents will differ depending upon whether parental permission was granted. This procedure is being followed in order to protect **every** student's privacy. As you recall we recently reviewed the participant consent form which described the purpose of the research and I answered questions. Are there any other questions before we begin? In your folders you will **all** find two pencils, participants will find a participant permission slip and three surveys; non participants will find puzzles and horoscopes. If you have a permission slip, please sign it and return it to your folder. Please do not put your name on any of the surveys, just the permission slip. You may fill out the surveys in any order you wish but please answer all questions as honestly as possible. If you have any questions, please raise your hand and I will come to your desk. You have the remainder of the class period, approximately 35 minutes to complete the paperwork in your folders. When you are done or the class has ended please place all paperwork in the folders provided. I will collect them as you walk out the door. Thank you for your participation, it is greatly appreciated."

Appendix E

Survey of Extracurricular Activities

√ Please check off all activities that you are involved in this year

□ Basketball □ Baseball □ Cross-Country □ Football □ Lacrosse □ Softball □ Swimming □ Tennis □ Track □ Volleyball □ Wrestling	□ Science Research Club □ French Club □ Math Olympiads □ Homework Club □ Chess Club □ The Investment Club □ Spanish Club □ The Just Write Club □ Art Club
□ Chamber Orchestra □ Jazz Ensemble □ Jazz Lab □ Musical □ Drama Club □ The Newspaper Club □ Yearbook Committee □ Video Club □ The Woodmere Star Literary Club	□ Student Council □ Anti Bias Club □ Cheerleading
□ Volunteer or Community Service Activity:	□ Other:

Date of Birth: _____

Grade: _____

Gender (Circle One): Male or Female

Ethnicity: _____

Student Resides With: ___ Mother and Father ____ Guardian

___ Mother Only ____ Mother and Step Parent

___ Father Only ____ Father and Step Parent

How many and what are the ages of you brothers and/or sister? #____ Ages:

_____

Have you ever been retained? (Circle One) Yes No I don't know

Have you ever been pushed ahead a grade? (Circle One) Yes No I don't know

Have you ever received Special Education Services? (Circle One) Yes No I don't know

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